Linda S. Adams
Secretary of Environmental Protection

California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov

ORDER NO. R2-2006-0037
NPDES NO. CA0037427

Arnold Schwarzenegger
Governor

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	Sanitary District No. 5 of Marin County
Name of Facility	Paradise Cove Treatment Plant
Facility Address	3700 Paradise Drive
	Tiburon, CA 94920
	Marin County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	POTW Effluent	37 °, 53', 50" N	122 °, 27', 40" W	Central San Francisco Bay

This Order was adopted by the Regional Water Board on:	June 14, 2006
This Order shall become effective on:	July 1, 2006
This Order shall expire on:	June 30, 2011
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 92-033 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted therein, and the provisions of the Federal Clean Water Act (CWA), and regulations and guidelines adopted therein, the Discharger shall comply with the requirements in this Order.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 14, 2006.

Bruce H. Wolfe, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 2, SAN FRANCISCO BAY REGION

ORDER NO. R2-2006-0037
NPDES NO. CA0037427

TABLE OF CONTENTS

I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Table 1. Facility Information

Discharger	Sanitary District No. 5 of Marin County
Name of Facility	Paradise Cove Treatment Plant
Facility Address	3700 Paradise Drive
	Tiburon, CA 94920
	Marin County
Facility Contact, Title, and Phone	Robert L. Lynch, Interim District Manager, (415) 435-1501
Mailing Address	P.O. Box 227, Tiburon, California 94920
Type of Facility	POTW
Facility Design Flow	0.020 MGD

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds:

A. **Background.** Sanitary District No. 5 of Marin County (hereinafter Discharger) is currently discharging under Order No. 92-033 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037427. The Discharger submitted a Report of Waste Discharge, dated December 20, 2001, and applied for a NPDES permit renewal to discharge up to 0.020 MGD of treated wastewater from the Paradise Cove Treatment Plant, hereinafter Facility. The application was deemed complete on March 18, 2003.

B. **Facility Description.** The Discharger owns and operates a municipal wastewater treatment plant. The treatment system consists of an influent equalization tank (primary settling), aeration tank, secondary clarifier, aerobic digester, chlorine contact tank and associated blower, bisulfite contact tank, and airlift sludge pump. Wastewater is discharged from the Discharge Point 001 (see table on cover page) to the Central San Francisco Bay, a water of the United States within the San Francisco Bay Watershed. Attachment B provides a location map of the area around the facility. Attachment C provides a flow schematic of the facility.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (US EPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

D. **Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through G, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. **California Environmental Quality Act (CEQA).** This action to adopt a NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Secondary Treatment Standards at 40 CFR Part 133 and Best Professional Judgment (BPJ) in accordance with 40 CFR §125.3 . A detailed discussion of the technology-based effluent limitations is included in the Fact Sheet (Attachment F).

G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), or proposed State criteria or a State policy interpreting narrative criteria. A detailed discussion of the water quality-based effluent limitations is included in the Fact Sheet (Attachment F).

1. **Constituents Identified in the 303(d) List.** On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State (the 303(d) List). The State had prepared the 303(d) List pursuant to provisions of section 303(d) of the CWA requiring identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. The pollutants impairing Central San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, PCBs, dioxin-like PCBs, and selenium.

H. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the San Francisco Bay (hereinafter Basin Plan) that designates beneficial uses, establishes WQOs, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to Central San Francisco Bay are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Central San Francisco Bay	Water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); wildlife habitat (WILD); preservation of habitat for rare and endangered species (RARE); estuarine habitat (EST); fish migration and spawning (MIGR, SPWN); shellfish harvesting (SHELL); navigation (NAV); industrial process and service supply (IND, PROC).

Requirements of this Order implement the Basin Plan.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The State Water Board subsequently amended the SIP and the amendments became effective on May 31, 2005. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

1. **Requirement for Additional Monitoring.** On August 6, 2001, Regional Water Board staff sent a letter to all permitted dischargers pursuant to Section 13267 of CWC requiring the submittal of effluent and receiving water data on priority pollutants, hereinafter referred to as the "August 6, 2001 Letter" (Attachment G). Pursuant to the August 6, 2001 Letter, the Discharger collected and analyzed priority pollutants during 2002. Details of these data and the rationale for the additional monitoring required in this Order are provided in the Fact Sheet (Attachment F).

K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement new or revised WQOs. This Order includes compliance schedules and interim effluent limitations. A detailed discussion of the basis for the

compliance schedules and interim effluent limitations is included in the Fact Sheet (Attachment F).

L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some effluent limitations in the previous Order have been removed. As discussed in detail in the Fact Sheet (Attachment F), this removal of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

N. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

O. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger (Attachment G). A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

P. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

Q. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

B. The discharge of average dry weather flows greater than 0.020 mgd is prohibited. The average dry weather flow shall be determined over three consecutive dry weather months each year.

C. Discharge of treated wastewater at any point where it does not receive an initial dilution of at least 10:1 is prohibited.

D. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the Facility or from the collection system or pump stations tributary to the WWTP, is prohibited, except as authorized by this Order.

The discharge of blended wastewater, that is, biologically treated wastewater blended with wastewater that has been diverted around biological treatment units or advanced treatment units, is allowable only (1) during wet weather and (2) when the discharge complies with the effluent and receiving water limitations contained in this Order. Furthermore, the Discharger shall operate the Facility as designed and in accordance with the O & M Manual developed for the Facility. This means that the Discharger shall optimize storage and use of equalization units, and shall fully utilize the biological treatment units and advanced treatment units, if applicable. The Discharger shall report these incidents of blended effluent discharges in routine monitoring reports, and shall conduct monitoring of this discharge as specified elsewhere in this Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations for E-001

1. The discharge of treated effluent shall maintain compliance with the following effluent limitations at the Discharge Point 001, with compliance measured at Monitoring Location E-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Max Daily	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	----	----
Total Suspended Solids	mg/L	30	45	----	----
Oil & Grease	mg/L	10	----	20	----
Total Chlorine Residual[1]	mg/L	----	----	----	0.0

[1] The chlorine residual requirement is defined as below the limit of detection in standard methods defined in *Standard Methods for the Examination of Water and Wastewater.* The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfate dosage (which could be interpolated), and chlorine concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Water Board staff may conclude that these false positive chlorine residual exceedances are not violations of this permit limitation.

2. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

3. **pH:** The pH of the discharge shall not exceed 9.0 nor be less than 6.0. If the Discharger employs continuous pH monitoring, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied:

    a. The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month.

    b. No individual excursion from the required range of pH values shall exceed 60 minutes.

4. **Total Coliform Bacteria:** The treated wastewater, at some point in the treatment process prior to discharge, shall meet the following bacteriological limitations: The moving median value of most probable number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 mL; and, any single sample shall not exceed 10,000 MPN/100 mL.

5. **Whole Effluent Acute Toxicity:** Representative samples of the effluent shall meet the following limitations for acute toxicity. Compliance with these limitations shall be achieved in accordance with Provision E.7 of this Order:

    a. The survival of bioassay test organisms in 96-hour bioassays of undiluted effluent shall be:

        (1) A three (3)-sample median value of not less than 90 percent survival; and

(2) A single (1) maximum value of not less than 70 percent survival.

b. The 3-sample median acute toxicity limit is further defined as follows:

Any bioassay test showing survival of 90 percent or greater is not a violation of this limitation. A bioassay test showing survival of less than 90 percent represents a violation of this effluent limitation, if one of the past two bioassay tests also shows less than 90 percent survival.

c. Bioassays shall be performed using the most up-to-date U.S. EPA protocol. Bioassays shall be conducted in compliance with "Methods for Measuring The Acute Toxicity of Effluents and Receiving Water To Freshwater and Marine Organisms", currently 5th Edition, and exceptions may be granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP) upon the Discharger's request with justification.

6. **Toxic Substances:** The discharge of effluent shall not exceed the following limitations: During the period beginning September 1, 2006 and ending as specified below, the discharge of secondary treated effluent shall maintain compliance with the following limitations at Discharge Point 001 with compliance measured at Monitoring Location E-001 as described in the attached Monitoring and Reporting Program (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

[(1)]Constituent	Units	Water Quality-Based Effluent Limits (WQBELs)		Interim Limits[(2)]	
		Maximum Daily (MDEL)	Monthly Average (AMEL)	Maximum Daily	Monthly Average
Copper[(3)]	µg/L	110	54	---	----
Cyanide[(4)(5)]	µg/L	6.4	3.2	10	----

(1) a. Compliance with these limitations is intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.

b. All analyses shall be performed using current U.S. EPA methods, or equivalent methods approved in writing by the Executive Officer. The Discharger is in violation of the limitation if the discharge concentration exceeds the effluent limitation and the reported ML for the analysis for that constituent.

c. Limitations apply to the average concentration of all samples collected during the averaging period (daily = 24-hour period; monthly = calendar month). Maximum Daily effluent limitations based on USEPA aquatic life criterion continuous concentrations may be met as a 4-day average (an average of all samples taken over a continuous 4-day period). If compliance is to be determined based on a 4-day average, the concentrations of each of the 24-hour composite samples shall be reported, as well as the average of the total number of composite samples taken over the 4-day period.

d. All metals limitations are total recoverable.

(2) The interim limitation shall remain in effect until April 27, 2010 for Cyanide, or until the Regional Water Board amends the limitation(s) based on site-specific objectives (SSOs).

(3) Alternate Copper Effluent Limitations. If a copper site-specific water quality objective (SSO) for the receiving water becomes legally effective, based on the assumptions in the Draft Report entitled Clean

Estuary Partnership's North of Dumbarton Bridge Copper and Nickel Site-Specific Objective (SSO) Derivation, dated December 2004, upon its effective date, the following copper effluent limitations shall supercede those specified above: Maximum Daily of 84 µg/L and Monthly Average of 42 µg/L. These effluent limitation calculations are based on the adjusted dissolved criteria CCC of 2.5 µg/L, CMC of 3.9 µg/L, and WER of 2.4.

(4) Compliance may be demonstrated by measurement of weak acid dissociable cyanide.

(5) Alternate Cyanide Effluent Limitations. If a cyanide site-specific water quality objective (SSO) for the receiving water becomes legally effective, based on the assumptions in Draft Staff Report on Proposed Site-Specific Water Quality Objectives and Effluent Limit Policy for Cyanide in San Francisco Bay, dated November 10, 2005, upon its effective date, the following cyanide effluent limitations shall supercede those specified above: Maximum Daily of 42 µg/L and Monthly Average of 21 µg/L.

V. RECEIVING WATER LIMITATIONS

The surface water receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order.

A. The discharge shall not cause the following in Central San Francisco Bay:

1. Floating, suspended, or deposited macroscopic particulate matter or foam;
2. Bottom deposits or aquatic growths;
3. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
4. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
5. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

B. The discharge shall not cause the following limits to be exceeded in Central San Francisco Bay:

1.	Dissolved Oxygen	5.0 mg/L, minimum
		The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations than those specified above, then the discharge shall not cause further reduction in the ambient concentration of dissolved oxygen.
2.	Dissolved Sulfide	0.1 mg/L, maximum
3.	pH	Variation from normal ambient pH by more than 0.5 pH units
4.	Un-ionized Ammonia	0.025 mg/L as N, annual median; 0.16 mg/L as N, maximum

C. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with all applicable items in the *Standard Provisions, Monitoring, and Reporting Requirements for NPDES Wastewater Discharge Permits, August 1993* (Attachment G), including any amendments thereto. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in the Standard Provisions, the specifications of this Order shall apply.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the Monitoring and Reporting Program (MRP), and future revisions thereto, in Attachment E of this Order, and with the Self-Monitoring Program Part A, August 1993 (Attachment G).

C. Special Provisions

1. **Reopener Provisions.** The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances:

   a. If present or future investigations demonstrate that the discharge(s) governed by this Order will, or cease to, have adverse impacts on water quality and/or beneficial uses of the receiving waters;

   b. As new or revised WQOs come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs;

   c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified;

   d. An administrative or judicial decision on a separate NPDES permit or WDR that addresses requirements similar to this discharge;

e. As authorized by law; and

The Discharger may request Order modification based on b, c, d, and e above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis, if applicable.

2. Permit Compliance and Rescission of Previous Waste Discharge Requirements

The Discharger shall comply with the limitations, prohibitions, and other provisions of this Order on the effective date of this NPDES Permit. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 92-033. Order No. 92-033 is hereby rescinded upon the effective date of this Order.

3. Effluent Characterization for Selected Constituents

The Discharger shall monitor and evaluate the discharge from E-001 for the constituents listed in Enclosure A of the Regional Water Board's August 6, 2001 Letter, according to its approved sampling plan submitted under the August 6, 2001 Letter. The Discharger shall monitor, for a minimum of one sampling event for the constituents listed in Enclosure A of the Regional Water Board's August 6, 2001 Letter, during the permit term. Compliance with this requirement shall be achieved in accordance with the specifications stated in the Regional Water Board's August 6, 2001 Letter under Effluent Monitoring for Minor Dischargers.

Reporting: The Discharger shall submit a final report that presents all the data to the Regional Water Board 180 days prior to Order expiration. This final report shall be submitted with the application for permit reissuance.

4. Ambient Background Receiving Water Study

The Discharger shall collect or participate in collecting background ambient receiving water monitoring data for priority pollutants that is required to perform RPA and to calculate effluent limitations. The data on the conventional water quality parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the ambient receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through monitoring through the Collaborative BACWA Study, or a similar ambient monitoring program for San Francisco Bay. This permit may be reopened, as appropriate, to incorporate effluent limits or other requirements based on Regional Water Board review of these data.

Reporting: The Discharger shall submit a final report that presents all the data to the Regional Water Board 180 days prior to Order expiration. This final report shall be submitted with the application for permit reissuance.

5. Pollutant Minimization Program

a) The Discharger shall conduct, in a manner acceptable to the Executive Officer, a Pollutant Minimization Program to reduce pollutant loadings of copper to the treatment plant and therefore to the receiving waters. The Discharger shall also implement any applicable additional pollutant minimization measures described in the Basin Plan implementation requirements associated with the cyanide SSO and Copper SSO if and when each of these SSOs become effective and the alternate limits for each take effect.

b) The Discharger shall submit an annual report, acceptable to the Executive Officer, no later than March 1 of each year. Annual reports shall cover January through December of the preceding year. Annual reports shall include at least the following information.

i. *A brief description of its treatment facilities and treatment processes.*

ii. *A discussion of the current pollutants of concern.* Periodically, the Discharger shall analyze its own situation to determine which pollutants are currently a problem and/or which pollutants may be potential future problems. This discussion shall include the reasons why the pollutants were chosen.

iii. *Identification of sources for the pollutants of concern.* This discussion shall include how the Discharger intends to estimate and identify sources of the pollutants. The Discharger shall also identify sources or potential sources not directly within the ability or authority of the Discharger to control, such as pollutants in the potable water supply and air deposition.

iv. *Identification of tasks to reduce the sources of the pollutants of concern.* This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. The Discharger may implement tasks itself or participate in group, regional, or national tasks that will address its pollutants of concern. The Discharger is strongly encouraged to participate in group, regional, or national tasks that will address its pollutants of concern whenever it is efficient and appropriate to do so. A time-line shall be included for the implementation of each task.

v. *Outreach to employees.* The Discharger shall inform employees about the pollutants of concern, potential sources, and how they might be able to help reduce the discharge of these pollutants of concern into the treatment facilities. The Discharger may provide a forum for employees to provide input to the Program.

vi. *Discussion of criteria used to measure the program's and tasks' effectiveness.* The Discharger shall establish criteria to evaluate the effectiveness of its Pollution Minimization Program. This shall also include a discussion of the specific criteria used to measure the effectiveness of each of the tasks in item b. (iii), b. (iv), and b. (v).

vii. *Documentation of efforts and progress.* This discussion shall detail all the Discharger's activities in the Pollution Minimization Program during the reporting year.

viii. *Evaluation of program's and tasks' effectiveness.* The Discharger shall use the criteria established in b. (vi) to evaluate the Program's and tasks' effectiveness.

ix. *Identification of Specific Tasks and Time Schedules for Future Efforts.* Based on the evaluation, the Discharger shall detail how it intends to continue or change its tasks to more effectively reduce the amount of pollutants to the treatment facilities, and subsequently in its effluent.

c) If the concentration of a priority pollutant in a monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level, the Discharger shall expand its existing Pollutant Minimization Program to include the priority pollutant. According to Section 2.4.5 of the SIP, when there is evidence that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as detected, but not quantified (less than the Minimum Level) and the effluent limitation is less than the reported Minimum Level; or

ii. A sample result is reported as not detected (less than the Minimum Level) and the effluent limitation is less than the Method Detection Level; or,

iii. The dioxin TEQ exceeds the WQO (0.014 pg/L); then

the Discharger shall expand its existing Pollutant Minimization Program to include the priority pollutant.

d) If triggered by the reasons in (c) above and notified by the Executive Officer, the Dischargers shall submit within 6 months of notification, the following:

i. An annual review and semiannual monitoring of potential sources of the reportable priority pollutant(s), which may include other monitoring, or alternative measures approved by the Executive Officer when it is demonstrated that source monitoring is unlikely to produce useful analytical data.

ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the treatment system, or alternative measures approved by the Executive Officer when it is demonstrated that influent monitoring is unlikely to produce useful analytical data.

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation.

iv. Development of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy.

v. An annual status report that shall be sent to the Board including the following:
(1) All Pollution Prevention monitoring results for the previous year
(2) A list of potential sources of the reportable priority pollutant(s)
(3) A summary of all actions undertaken pursuant to the control strategy
(4) A description of actions to be taken in the following year.

e) The Pollutant Minimization Program requirements is not intended to fulfill the requirements in the Clean Water Enforcement and Pollution Prevention Act of 1999 (Senate Bill 709).

6. Optional Mass Offset

The Discharger may submit to the Regional Water Board for approval a mass offset plan to reduce 303(d)-listed pollutants to the same watershed or drainage basin. The Regional Water Board may modify this Order to allow an approved mass offset program.

7. Sanitary Sewer Management Plan

The Discharger shall fully participate in BACWA's collaborative program to develop guidelines for sanitary sewer management plans (SSMPs). The Discharger shall report sanitary sewer overflows electronically and develop and implement a Discharger-specific SSMP, acceptable to the Executive Officer.

8. Actions for Compliance Schedule Pollutants

This Order grants a compliance schedule for cyanide. Pursuant to Section 2.1 of the SIP and Chapter 4 of the Basin Plan, the Discharger shall (a) conduct pollution minimization in accordance with Provision C.5, (b) participate in and support the development of the cyanide SSO, and (c) submit an update to the Regional Water Board in the annual self-monitoring report to document its efforts toward development of SSO(s) and/or progress towards plant closure. Regional Water Board staff shall review the status of SSO development. In the event the copper SSO is not developed by July 1, 2009, the Discharger shall submit by July 1, 2009, a schedule that documents how it will further reduce pollutant concentrations to ensure compliance with the cyanide final limit specified in Effluent Limitations and Discharge Specifications A.6.

9. Whole Effluent Acute Toxicity

Compliance with acute toxicity requirements of this Order shall be achieved in accordance with the following:

i. Compliance with the acute toxicity effluent limits of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour static renewal bioassays.

ii. Test organisms shall be stickle-back and fathead minnow tested concurrently during a one-year screening period. Following receipt of the acute toxicity screening study, the Executive Officer will allow further compliance monitoring with only one fish species (the most sensitive, if determined) if the Discharger can also document that the acute toxicity has been observed in only one fish species. If within 45-days of the Discharger's request for one-species monitoring, the Executive Officer has not commented, the request shall be deemed approved.

iii. All bioassays shall be performed according to the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms," (currently 5th Edition), with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

10. Biosolids Management Practices Requirements

a) All sludge generated by the Discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 CFR Part 503. If the Discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to the USEPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the Discharger. The Regional Water Board should be copied on relevant correspondence and reports forwarded to the USEPA regarding sludge management practices.

b) Sludge treatment, storage and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or results in groundwater contamination.

c) Due to mitigate: The Discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.

d) The discharge of biosolids shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.

e) The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

f) For sludge that is applied to the land, placed on a surface disposal site, or fired in a biosolids incinerator as defined in 40 CFR 503, the Discharger shall submit an annual report to the USEPA and the Regional Water Board containing monitoring results and pathogen and vector attraction reduction requirements as specified by 40 CFR 503, postmarked February 15 of each year, for the period covering the previous calendar year.

g) Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the Discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

h) Permanent on-site sludge storage or disposal activities are not authorized by this permit. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the Discharger.

i) Sludge Monitoring and Reporting Provisions of this Regional Water Board's "Standard Provisions, Monitoring and Reporting Requirements", August 1993 (Attachment G), apply to sludge handling, disposal and reporting practices.

j) The Regional Water Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

11. Construction, Operation and Maintenance Specifications

a. Wastewater Facilities, Review and Evaluation, and Status Reports

1) The Discharger shall operate and maintain its wastewater collection, treatment, and disposal facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

2) The Discharger shall regularly review and evaluate its wastewater facilities and operation practices in accordance with section a. above. Reviews and evaluations shall be conducted as an ongoing component of the Discharger's administration of its wastewater facilities.

3) The Discharger shall provide the Executive Officer, upon his or her request, a report describing the current status of its wastewater facilities and operation practices, including any recommended or planned actions and an estimated time schedule for these actions. The Discharger shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures, and applicable wastewater facility programs or capital improvement projects.

b. Operations and Maintenance Manual (O&M), Review and Status Reports

1) The Discharger shall maintain an O & M Manual as described in the findings of this Order for the Discharger's wastewater facilities. The O & M Manual shall be maintained in usable condition, and available for reference and use by all applicable personnel.

2) The Discharger shall regularly review, revise, or update, as necessary, the O & M Manual(s) so that the document(s) may remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary. For any significant changes in treatment facility equipment or operation practices, applicable revisions shall be completed within 90 days of completion of such changes.

3) The Discharger shall provide the Executive Officer, upon his or her request, a report describing the current status of its O&M manual, including any recommended or planned actions and an estimated time schedule for these actions. The Discharger

shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures, and applicable changes to, its operations and maintenance manual.

c. Contingency Plan, Review and Status Reports

1) The Discharger shall maintain a Contingency Plan as required by Regional Water Board Resolution 74-10 (**Attachment G**), and as prudent in accordance with current municipal facility emergency planning. The discharge of pollutants in violation of this Order where the Discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

2) The Discharger shall regularly review, and update as necessary, the Contingency Plan so that the plan may remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and updates shall be completed as necessary.

3) The Discharger shall provide the Executive Officer, upon his or her request, a report describing the current status of its contingency plan review and update. The Discharger shall also include, in each annual self-monitoring report, a description or summary of review and evaluation procedures, and applicable changes to, its contingency plan.

12. Order Reapplication

In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissuance of this permit and waste discharge requirements. The application shall be accompanied by a summary of all available water quality data including conventional pollutant data from no less than the most recent three years, and of toxic pollutant data no less than from the most recent five years, in the discharge and receiving water. Additionally, the Discharger must include with the application the final results of any studies that may have bearing on the limits and requirements of the next permit.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. Average Monthly Effluent Limitation (AMEL).
If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Average Weekly Effluent Limitation (AWEL).
If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

C. Maximum Daily Effluent Limitation (MDEL).
If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

D. Instantaneous Minimum Effluent Limitation.
If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

E. Instantaneous Maximum Effluent Limitation.
If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both

exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

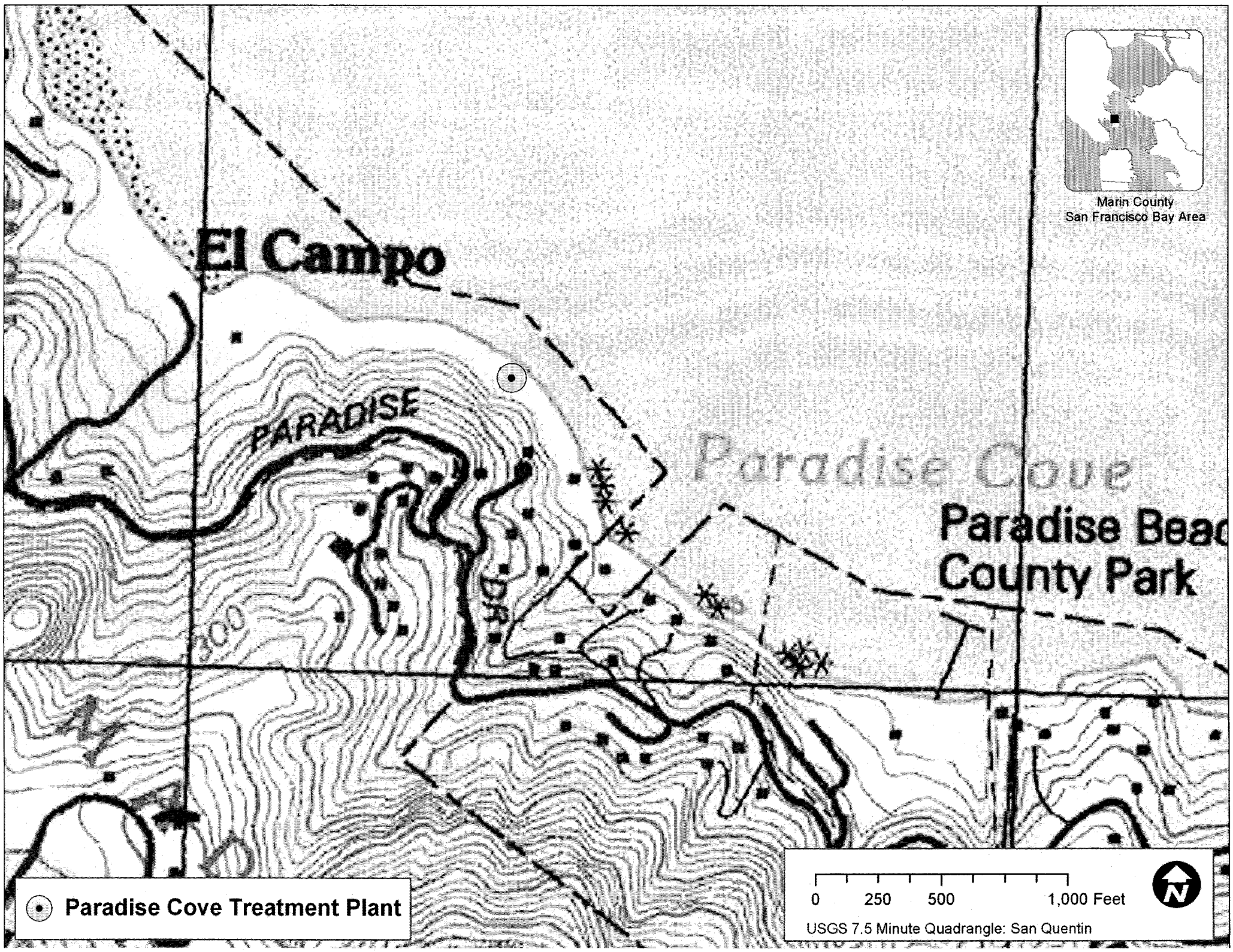
Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

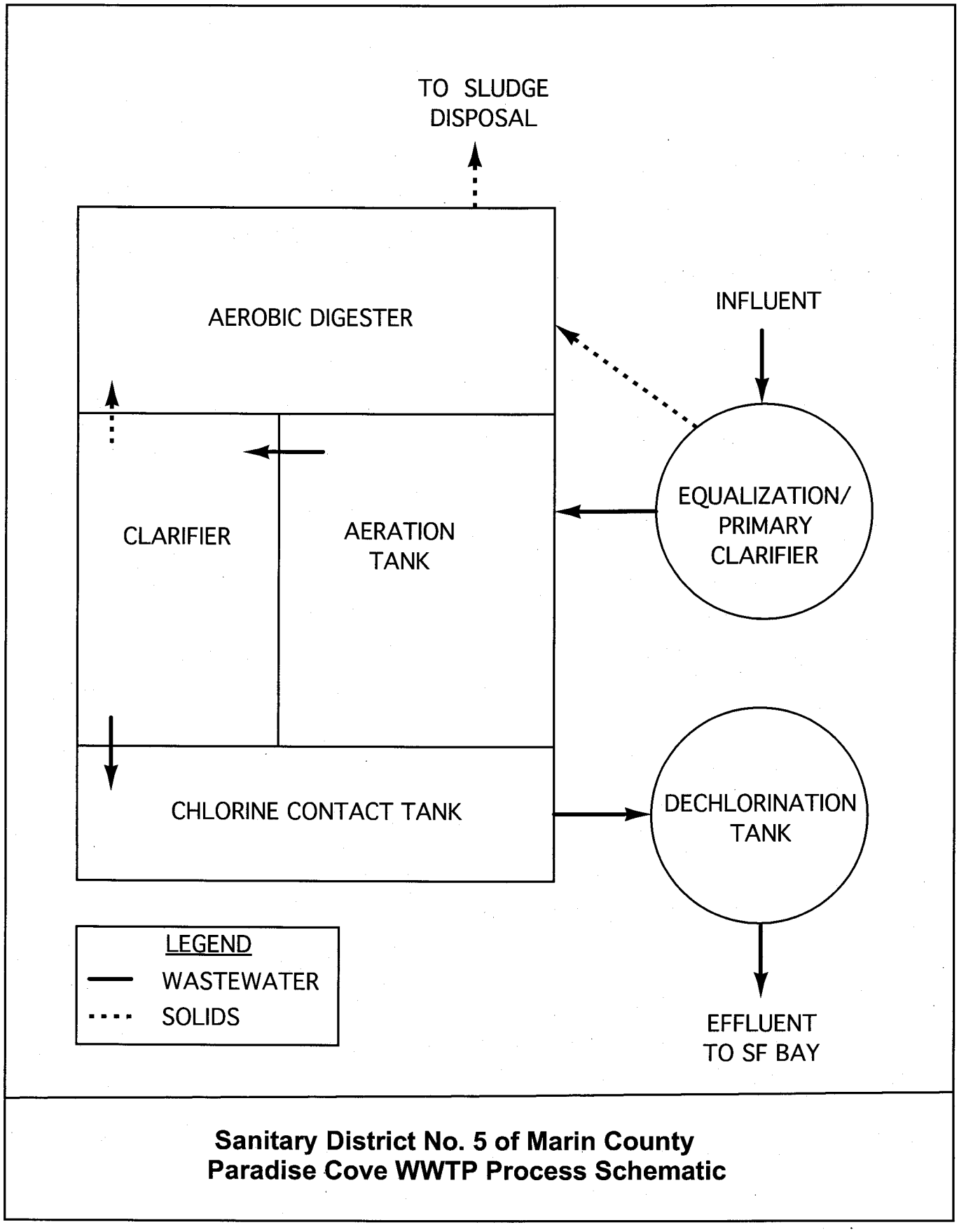
ATTACHMENT B – LOCATION MAP

This attachment includes a topographic map(s) showing the permitted facility, the area surrounding the facility, and the receiving water.


El Campo
PARADISE
Paradise Cove
Paradise Beac
County Park
Marin County
San Francisco Bay Area
Paradise Cove Treatment Plant
0
250
500
1,000 Feet
N
USGS 7.5 Minute Quadrangle: San Quentin

ATTACHMENT C – PARADISE COVE FLOW SCHEMATIC

This attachment includes a diagram(s) showing the flow of water and wastewater through the facility, including, if available, raw water supply, flow rates through various processes, and flow rates into and out of the treatment system. This diagram also should indicate the Discharge Points and Monitoring Locations.



Sanitary District No. 5 of Marin County
Paradise Cove WWTP Process Schematic

ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [*40 CFR §122.41(a)(1)*].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [*40 CFR §122.41(c)*].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [*40 CFR §122.41(d)*].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [*40 CFR §122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR §122.41(g)*].

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [*40 CFR §122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [*40 CFR §122.41(i)*] [*CWC 13383(c)*]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [*40 CFR §122.41(i)(1)*];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [*40 CFR §122.41(i)(2)*];

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [*40 CFR §122.41(i)(3)*];

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [*40 CFR §122.41(i)(4)*].

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [*40 CFR §122.41(m)(1)(i)*].

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [*40 CFR §122.41(m)(1)(ii)*].

2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3 and I.G.5 below [*40 CFR §122.41(m)(2)*].

3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [*40 CFR §122.41(m)(4)(i)*]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [*40 CFR §122.41(m)(4)(A)*];

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [*40 CFR §122.41(m)(4)(B)*]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)(C)*].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [*40 CFR §122.41(m)(4)(ii)*].

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [*40 CFR §122.41(m)(3)(i)*].

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below [*40 CFR §122.41(m)(3)(ii)*].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [*40 CFR §122.41(n)(1)*].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [*40 CFR §122.41(n)(2)*].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [*40 CFR §122.41(n)(3)*]:

a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];

b. The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [*40 CFR §122.41(n)(3)(iii)*]; and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §122.41(n)(3)(iv)*].

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR §122.41(n)(4)*].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR §122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR §122.41(b)*].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [*40 CFR §122.41(j)(1)*].

B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [*40 CFR §122.41(j)(4)*] [*40 CFR §122.44(i)(1)(iv)*].

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip

chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [*40 CFR §122.41(j)(2)*].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];
2. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];
3. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];
4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];
5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and
6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

C. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

1. The name and address of any permit applicant or Discharger [*40 CFR §122.7(b)(1)*]; and
2. Permit applications and attachments, permits and effluent data [*40 CFR §122.7(b)(2)*].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board [*40 CFR §122.41(h)*] [*CWC 13267*].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [*40 CFR §122.41(k)*].
2. All permit applications shall be signed as follows:
   a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other

person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [*40 CFR §122.22(a)(1)*];

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [*40 CFR §122.22(a)(2)*]; or

c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [*40 CFR §122.22(a)(3)*].

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in paragraph (b) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in paragraph (2.) of this provision [*40 CFR §122.22(b)(1)*];

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [*40 CFR §122.22(b)(2)*]; and

   c. The written authorization is submitted to the Regional Water Board, State Water Board, or USEPA [*40 CFR §122.22(b)(3)*].

4. If an authorization under paragraph (3.) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3.) of this provision must be submitted to the Regional Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].

5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations" [*40 CFR §122.22(d)*].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [*40 CFR §122.41(l)(4)*].

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [*40 CFR §122.41(l)(4)(i)*].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [*40 CFR §122.41(l)(4)(ii)*].

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [*40 CFR §122.41(l)(4)(iii)*].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [*40 CFR §122.41(l)(5)*].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [*40 CFR §122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(A)*].

   b. Any upset that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(B)*].

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)(C)*].

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [*40 CFR §122.41(l)(6)(iii)*].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [*40 CFR §122.41(l)(1)*]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b) [*40 CFR §122.41(l)(1)(i)*]; or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [*40 CFR §122.41(l)(1)(ii)*].

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [*40 CFR §122.41(l)(1)(iii)*].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [*40 CFR §122.41(l)(2)]*.

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [*40 CFR §122.41(l)(7)*].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [*40 CFR §122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Clean Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*40 CFR §122.41(a)(2)*] [*CWC 13385 and 13387*].

B. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II

violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*40 CFR §122.41(a)(3)*].

C. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [*40 CFR §122.41(j)(5)*].

D. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*40 CFR §122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [*40 CFR §122.42(a)*]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(1)*]:

   a. 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

   b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(1)(ii)*];

   c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(1)(iii)*]; or

   d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(1)(iv)*].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(2)*]:

   a. 500 micrograms per liter (µg/L) [*40 CFR §122.42(a)(2)(i)*];

b. 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(2)(ii)*];

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(2)(iii)*]; or

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(2)(iv)*].

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR §122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR §122.42(b)(1)*]; and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR §122.42(b)(2)*].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR §122.42(b)(3)*].

Attachment E – Monitoring and Reporting Program – Table of Contents

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the Federal and State regulations.

I. GENERAL MONITORING PROVISIONS

A. The Discharger shall comply with the MRP for this Order as adopted by the Regional Water Board, and with all of the Self-Monitoring Program, Part A, adopted August 1993 (SMP). The MRP and SMP may be amended by the Executive Officer pursuant to USEPA regulations 40 CFR122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and SMP, the MRP prevails.

B. Sampling is required during the entire year when discharging. All analyses shall be conducted using current USEPA methods, or that have been approved by the USEPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5, or equivalent methods that are commercially and reasonably available, and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits. Equivalent methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer, following consultation with the State Water Quality Control Board's Quality Assurance Program. The Regional Water Board will find the Discharger in violation of the limitation if the discharge concentration exceeds the effluent limitation and the Reporting Level for the analysis for that constituent.

C. Sampling and analysis of additional constituents is required pursuant to Table 1 of the Regional Water Board's August 6, 2001 Letter titled Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy.

D. *Minimum Levels.* For compliance and reasonable potential monitoring, analyses shall be conducted using the commercially available and reasonably achievable detection levels which are lower than the WQOs/WQC or the effluent limitations, whichever is lower. The objective is to provide quantification of constituents sufficient to allow evaluation of observed concentrations with respect to the Minimum Levels given below. All Minimum Levels are expressed as µg/L approximately equal to parts per billion (ppb).

The following table lists the test method the Discharger may use for compliance and reasonable potential monitoring for the pollutants with effluent limits.

CTR #	Constituent	Minimum Levels for Types of Analytical Methods [a]						
		GFAA	ICP	ICPMS	SPGFAA	CVAFS	COLOR	GC
6.	Copper	5	10	0.5	2			
14.	Cyanide						5	

[a] Laboratory techniques are defined as follows:

GFAA = Graphite Furnace Atomic Absorption
ICP = Inductively Coupled Plasma
ICPMS = Inductively Coupled Plasma/Mass Spectrometry
SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption

CVAF = Cold Vapor Atomic Fluorescence Spectrometry
COLOR = Colorimetric
GC = Gas Chromatography

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment, and exclusive of any return flows or process side-streams.
001	E-001	At a point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present (maybe be the same as E-001D).
001	E-001D	At any point in the disinfection facilities for Waste E-001A at which adequate contact with the disinfectant is assured.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location A-001

1. The Discharger shall monitor influent to the facility at A-001 as follows:

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency	Required Analytical Test Method
Flow Rate[2]	gpd	Continuous	Daily	
BOD, 5-day, 20°C,	mg/L & kg/day	24-hr composite	Quarterly	
Total Suspended Solids	mg/L & kg/day	24-hr composite	Quarterly	

Footnotes:

[1] Composite sampling: 24-hour composites may be made up of discrete grabs collected over the course of a day and volumetrically or mathematically flow-weighted. Samples for inorganic pollutants may be combined prior to analysis. Samples for organic pollutants should be analyzed separately. If only one grab sample will be collected, it should be collected during periods of maximum peak flows. Samples shall be taken on random days.

[2] Flow monitoring: Influent and Effluent flow shall be measured continuously and recorded and reported daily. For effluent flows, the following information shall also be reported, monthly:

Daily: Daily Flow (gallons)
Monthly: Average Daily Flow (gpd)
Monthly: Maximum Daily Flow (gpd)
Monthly: Minimum Daily Flow (gpd)
Monthly: Total Flow Volume (gallons)

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location E-001, E-001D

1. The Discharger shall monitor treated effluent at E-001, E-001D as follows:

Parameter	Units	Sample Type[1], [2]	Minimum Sampling Frequency	Required Analytical Test Method
Flow Rate[3]	gpd	Continuous	Daily	
BOD, 5-day, 20 °C,[4]	mg/L & kg/day	24-hr Composite	Quarterly	
Oil & Grease[5]	mg/L & kg/day	Grab	Annually	
Chlorine Residual & Dosage[6]	mg/L & kg/day	Continuous	5 days/week	
Total Suspended Solids[4]	mg/L & kg/day	24-hr Composite	Quarterly	
pH	Standard unit	Grab	5 days/week	
Dissolved Oxygen	mg/L	Grab	Monthly	
Total Coliform	MPN/100mL	Grab	Quarterly	
Acute Toxicity, 96-hr[7]	% survival	24-hr Composite	Annually	
Copper	µg/L & kg/month	24-hr Composite	Quarterly	
Cyanide	µg/L	Grab	Quarterly	
2,3,7,8 TCDD & congeners[8]	µg/L	Grab	Once during term	
Table 1 selected constituents[9]	misc.	Misc.	Once during term	

Footnotes:

[1] Composite sampling: 24-hour composites may be made up of discrete grabs collected over the course of a day and volumetrically or mathematically flow-weighted. Samples for inorganic pollutants may be combined prior to analysis. Samples for organic pollutants should be analyzed separately. If only one grab sample will be collected, it should be collected during periods of maximum peak flows. Samples shall be taken on random days.

[2] Grab samples shall be collected coincident with composite samples collected for the analysis of regulated parameters.

[3] Flow monitoring: Influent and Effluent flow shall be measured continuously and recorded and reported daily. For effluent flows, the following information shall also be reported, monthly:

Daily: Daily Flow (gallons)
Monthly: Average Daily Flow (gpd)
Monthly: Maximum Daily Flow (gpd)
Monthly: Minimum Daily Flow (gpd)
Monthly: Total Flow Volume (gallons)

[4] The percent removal for BOD and TSS shall be reported for each quarter in accordance with Effluent Limitation A.2.

[5] Oil and grease: Each oil and grease sampling event shall consist of a composite sample composed of three grab samples taken at equal intervals during the sampling date, with each grab sample being collected in a glass container. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite sample for extraction and analysis.

[6] Chlorine residual: The dechlorinated effluent shall be monitored continuously or, at a minimum, once every day. Report, on a daily basis, both maximum and minimum concentrations, for samples taken both prior to and following dechlorination. If a violation is detected, the maximum and average concentrations and duration of each non-zero residual event shall be reported, along with the cause and corrective actions taken. Total chlorine dosage (gal/day) shall be recorded on a daily basis.

[7] Bioassays: Effluent used for fish bioassays must be dechlorinated prior to testing. Monitoring of the bioassay water shall include, on a daily basis, the parameters specified in the U.S. EPA-approved method, such as pH, dissolved oxygen, ammonia nitrogen, and temperature. These results shall be reported. If the fish survival rate in the effluent is less than 70 percent or if the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new batches of fish and shall continue as soon as practicable until compliance is demonstrated. The Discharger may continue using static-renewal procedures as allowed by the regulations.

[8] Chlorinated dibenzodioxins and chlorinated dibenzofurans shall be analyzed using the latest version of U.S. EPA Method 1613; the analysis shall be capable of achieving one-half of the U.S EPA MLs and the Discharger shall collect 4-liter samples to lower the detection limits to the greatest extent practicable. At a minimum, the Discharger is required to monitor once for the life of this permit. Alternative methods of analysis must be approved by the Executive Officer.

[9] Sampling for Table 1 Selected Constituents in the SIP is addressed in a letter dated August 6, 2001, from Regional Water Board Staff: "Requirements for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy" (not attached, but available for review or download on the Regional Water Board's website at www.waterboards.ca.gov/sanfranciscobay).

V. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D and G) related to monitoring, reporting, and recordkeeping, except as otherwise specified below.

B. Modifications to Part A of Self-Monitoring Program (Attachment G)

1. If any discrepancies exist between SMP Part A, August 1993 (**Attachment G**) and this MRP, this MRP prevails.

2. Section C.2.h of Part A shall be amended as follows:

   h. When any type of bypass occurs, except for bypasses that are consistent with Prohibition 2, composite samples shall be collected on a daily basis for all constituents at all affected discharge points that have effluent limits for the duration of the bypass.

   When bypassing occurs from any treatment process (primary, secondary, chlorination, dechlorination, etc.) in the treatment facility that is consistent with Prohibition 2, during high wet weather inflow, the self-monitoring program shall include the following sampling and analyses, in addition to the schedule given in this MRP:

   i. When bypassing occurs from any primary or secondary treatment unit(s), samples of the discharge shall be collected for the duration of the bypass event for BOD and TSS analyses in 24-hour composite or less increments, and continuous monitoring of flow, chlorine residual, and grabs for pH and coliform. Samples in accordance with proper sampling techniques for all other limited pollutant parameters shall also be collected and retained for analysis if necessary. If BOD or TSS values exceed the weekly average effluent limits, analysis of the retained samples shall be conducted for all these pollutant constituents that have effluent limits for the duration of the bypass, until the BOD and TSS are in compliance with their weekly effluent limitations. Holding times for these retain samples must be complied with.

   ii. When bypassing the chlorination process, grab samples shall be collected at least daily for total coliform analyses; and continuous monitoring of flow.

iii. When bypassing the dechlorination process, grab samples shall be collected hourly for chlorine residual; and continuous monitoring of flow.

3. Sections C.3. and C.5. are satisfied by participation in the Regional Monitoring Program.

4. Modify Section F.1 as follows:

Spill Reports
A report shall be made of any spill of oil or other hazardous material. The spill shall be reported by telephone as soon as possible and no later than 24 hours following occurrence or discharger's knowledge of occurrence. Spills shall be reported by telephone as follows:

During weekdays, during office hours of 8 am to 5 pm, to the Regional Water Board: (510) 622 - 5633, (510) 622-2460 (FAX).

During non-office hours, to the State Office of Emergency Services:

Current telephone number: (800) 852-7550.

A report shall be submitted to the Regional Water Board within five (5) working days following telephone notification, unless directed otherwise by Regional Water Board staff. A report submitted by facsimile transmission is acceptable for this reporting. The written report shall contain information relative to:

5. Modify Section F.2 (first paragraph) as follows:

Reports of Plant Bypass, Treatment Unit Bypass and Order Violation
The following requirements apply to all treatment plant bypasses and significant non-compliance occurrences, except for bypasses under the conditions contained in 40 CFR Part 122.41 (m)(4) as stated in Standard Provision A.13. In the event the Discharger violates or threatens to violate the conditions of the waste discharge requirements and prohibitions or intends to experience a plant bypass or treatment unit bypass due to:

[And add at the end of Section F.2 the following:]

The Discharger shall report in monthly and annual monitoring reports occurrence of blending events, their duration and certify that the blending was in compliance with effluent limits and O&M Plans.

6. Modify Section F.4 as follows:

Self-Monitoring Reports
For each quarter, a self-monitoring report (SMR) shall be submitted to the Regional Water Board in accordance with the requirements listed in Self-Monitoring Program, Part A. The purpose of the report is to document treatment performance, effluent quality and compliance with waste discharge requirements prescribed by this Order, as demonstrated by the monitoring program data and the Discharger's operation practices.

[And add at the end of Section F.4 the following:]

g. If the Discharger wishes to invalidate any measurement, the letter of transmittal will include: a formal request to invalidate the measurement; the original measurement in question; the reason for invalidating the measurement; all relevant documentation that supports the invalidation (e.g., laboratory sheet, log entry, test results, etc.); and discussion of the corrective actions taken or planned (with a time schedule for completion), to prevent recurrence of the sampling or measurement problem. The invalidation of a measurement requires the approval of Water Board staff, and will be based solely on the documentation submitted at this time.

h. The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. The ERS format includes, but is not limited to, a transmittal letter, summary of violation details and corrective actions, and transmittal receipt. If there are any discrepancies between the ERS requirements and the "hard copy" requirements listed in the SMP, then the approved ERS requirements supersede.

7. Add at the end of Section F.5, Annual Reporting, the following:

d. A plan view drawing or map showing the Discharger's facility, flow routing and sampling and observation station locations.

8. Add as Section F.6 the following:

Reports of Wastewater Overflows
Overflows of sewage from the Discharger's collection system, other than overflows specifically addressed elsewhere in this Order and SMP, shall be reported to the Regional Water Board in accordance the Regional Water Board's letter dated November 15, 2004.

9. Amend Section E as Follows:

Recording Requirements – Records to be Maintained
Written reports, electronic records, strip charts, equipment calibration and maintenance records, and other records pertinent to demonstrating compliance with waste discharge requirements including SMP requirements, shall be maintained by the Discharger in a manner and at a location (e.g., wastewater treatment plant or discharger offices) such that the records are accessible to Regional Water Board staff. These records shall be retained by the Discharger for a minimum of 3 years. The minimum period of retention shall be extended during the course of any unresolved litigation regarding the subject discharges, or when requested by the Regional Water Board or by the Regional Administrator of U.S. EPA, Region IX.

Records to be maintained shall include the following:

a) Parameter Sampling and Analyses, and Observations

For each sample, analysis, or observation conducted, records shall include the following:

i. Identity of the parameter.

ii. Identity of the sampling or observation station, consistent with the station descriptions given in this SMP.

iii. Date and time of the sampling or observation.

iv. Method of sampling (grab, composite, other method).

v. Date and time the analysis was started and completed, and name of personnel or contract laboratory performing the analysis.

vi. Reference or description of the procedure(s) used for sample preservation and handling, and analytical method(s) used.

vii. Calculations of results.

viii. Analytical method detection limits and related quantitation parameters.

ix. Results of the analyses or observations.

b) Flow Monitoring Data

For all required flow monitoring (e.g., influent and effluent flows), records shall include the following:

i. Total flow or volume for each day.

ii. Maximum, minimum, and average daily flows for each calendar month.

c) Wastewater Treatment Process Solids

i. For each treatment unit process that involves solid removal from the wastewater stream, records shall include the following:

1). Total volume and/or mass quantification of solids removed from each unit (e.g., grit, skimmings, undigested sludge), for each calendar month
2). Final disposition of such solids (e.g., landfill, other subsequent treatment unit).

ii. For final dewatered sludge from the treatment plant as a whole, records shall include the following:

1). Total volume and/or mass quantification of dewatered sludge, for each calendar month.
2). Solids content of the dewatered sludge.
3). Final disposition of dewatered sludge (point of disposal location and disposal method).

d) Disinfection Process

For the disinfection process, records shall be maintained documenting process operation and performance, including the following:

i. For bacteriological analyses:

1). Date and time of each sample collected.
2). Wastewater flow rate at the time of the sample collection.
3). Results of the sample analyses (coliform count).
4). Required statistical parameters of cumulative coliform values (e.g., moving the median or geometric mean for a number of samples or the sampling period identified in waste discharge requirements).

e) Treatment Process Bypasses

A chronological log of all treatment process bypasses, other than wet weather bypasses addressed elsewhere in this Order and SMP, shall include the following:

i. Identification of the treatment process bypassed.

ii. Date(s) and times of bypass beginning and end.

iii. Total bypass duration.

iv. Estimated total volume.

v. Description of, or reference to other report(s) describing, the bypass event, the cause, corrective actions taken, and any additional monitoring conducted.

6. Collection System Overflows

A chronological log of all collection system overflows shall include the following:

i. Location of the overflow.

ii. Date(s) and times of overflow beginning and end.

iii. Total overflow duration.

iv. Estimated total volume.

v. Description of, or reference to other report(s) describing, the overflow event, the cause, corrective actions taken, and any additional monitoring conducted.

C. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit self-monitoring reports in accordance with the requirements described below.

2. The Discharger shall submit quarterly Self Monitoring Reports (SMRs) including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Quarterly SMRs shall be due 30 days after the end of each Quarter.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	effective date of permit	All	First day of second calendar month following month of sampling
Once / day	effective date of permit	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
Once / week	effective date of permit	Sunday through Saturday	First day of second calendar month following month of sampling
Once / month	effective date of permit	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
Once / quarter	effective date of permit	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Once / semi-annual period	effective date of permit	Wet Season: October 1 to April 30 Dry Season: May 1 to September 30	June 1 November 1
Once / year	effective date of permit	Dry Season: May 1 to September 30	February 1

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

   d. The Discharger shall instruct laboratories to establish calibration standards so that the RL value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. The Discharger shall not use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.

6. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

   Executive Officer
   California Regional Water Quality Control Board
   San Francisco Bay Region
   1515 Clay Street, Suite 1400
   Oakland, CA 94612
   ATTN: NPDES Permit Division

8. The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. The Electronic Reporting System (ERS) format includes, but is not limited to, a transmittal letter, summary of violation details and corrective actions, and transmittal receipt. If there are any discrepancies between the ERS requirements and the "hard copy" requirements listed in the MRP, then the approved ERS requirements supersede.

C. Other Reports

1. **Annual Reports.** By February 1st of each year, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the items described in Part A of the SMP, Section F.5 (Attachment G).

ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

WDID	**2 215021002**
Discharger	**Sanitary District No. 5 of Marin County**
Name of Facility	**Paradise Cove Treatment Plant**
Facility Address	**3700 Paradise Drive**
	Tiburon, CA 94920
	Marin County
Facility Contact, Title and Phone	**Robert L. Lynch, Interim District Manager, (415) 435-1501**
Authorized Person to Sign and Submit Reports	**Tim O'Day, Wastewater facility Manager, (415) 435-1501**
Mailing Address	**P.O. Box 227, Tiburon, CA 94920**
Billing Address	**Same**
Type of Facility	**POTW**
Major or Minor Facility	**Minor**
Threat to Water Quality	**--**
Complexity	**--**
Pretreatment Program	**N**
Reclamation Requirements	**N**
Facility Permitted Flow	**0.020 mgd**
Facility Design Flow	**0.020 mgd**
Watershed	**San Francisco Bay**
Receiving Water	**Central San Francisco Bay**
Receiving Water Type	**Marine**

A. Sanitary District No. 5 of Marin County (hereinafter Discharger) is the owner of the Paradise Cove Treatment Plant (hereinafter WWTP), a POTW.

B. The Facility discharges wastewater to Central San Francisco Bay, a water of the United States, and is currently regulated by Order 92-033 and NPDES Permit No. CA0037427, which was adopted on April 15, 1992 and expired on April 15, 1997. The terms of the existing Order automatically continued in effect after the permit expiration date.

C. The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on December 20, 2001.

II. FACILITY DESCRIPTION

The Discharger operates a municipal wastewater treatment plant (the WWTP) that serves 60-65 homes north of the town of Tiburon in Marin County. The WWTP includes an extended aeration process that provides secondary treatment of domestic wastewater. The WWTP's original rated capacity was 25,000 gpd, however, Order No. 92-033 limited the average dry weather design flow to 11,000 gpd. The Discharger has completed an evaluation, finalized May 9, 2005, that concluded the WWTP can effectively treat up to 20,000 gpd. Regional Water Board has confirmed that the WWTP has a dry weather capacity of 20,000 gallons per day (gpd) and approves, in this permit, an increase in permitted average dry weather capacity to 20,000 gpd. The wastewater flow to the WWTP increased by 58% in 2003 from the previous year. This increase was due to several properties abandoning their individual septic tank systems and collectively sharing a new 5,000-foot force main installed by one of the property owners. It is anticipated that more property owners will join this effort by installing pipelines to serve their properties, and the WWTP is expected to receive more flow from new connections.

A. Description of Wastewater and Biosolids Treatment or Controls

Wastewater from 60-65 homes is conveyed by two gravity lines to an influent wet well. A limited amount of flow equalization is provided. The treatment units consist of two wet wells, a grinder pump, aeration basin and clarifier. The effluent is chlorinated (sodium hypochlorite is used) and dechlorinated (sodium bisulfite is used) with full SCADA System installed for monitoring The system has redundancy in terms of blowers and pumps, but there is no redundancy of treatment units (i.e., aeration tank and clarifier). For this reason, repairs and preventative maintenance on these units is difficult. An emergency generator has been provided to address possible power outages.

Sludge is processed in an aerobic digester and removed by tank truck for disposal at the Marin Sanitary District No. 5 Wastewater Treatment Plant located in Tiburon.

B. Discharge Points and Receiving Waters

1. **Discharge Point 001.** The discharge occurs through a submerged outfall approximately 100 feet offshore, at a depth of about 20 feet below surface of San Francisco Bay. This Discharge is classified by the Board as a deepwater discharge. The location of the Paradise Cove outfall and its receiving water are shown in Table F-2 below.

Table F-2. Outfall Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
E-001	POTW Effluent	37 °, 53', 50" N	122 °, 27', 40" W	Central San Francisco Bay

The Central San Francisco Bay is located in the Central Bay Basin watershed management area, between the Richmond-San Rafael Bridge and the San Francisco-Oakland Bay Bridge.

2. Storm Water Discharges.

a. **Regulations**. Federal regulations for storm water discharges were promulgated by the USEPA on November 19, 1990. The regulations [40 CFR Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial storm water discharges.

b. **Exemption from Coverage under Statewide Storm Water General Permit**. The State Water Resources Control Board's (the State Board's) statewide NPDES permit for storm water discharges associated with industrial activities (NPDES General Permit CAS000001- the General Permit) was adopted on November 19, 1991, amended on September 17, 1992, and reissued on April 17, 1997. The Discharger is not required to be covered under the General Permit because all storm water flows to the Facility, and is treated along with the wastewater discharged to the Facility.

C. **Summary of Existing Requirements and Self-Monitoring Report (SMR) Data.** Effluent limitations contained in the previous permit (Order No. 92-033 for discharges from Monitoring Location E-001) and representative monitoring data from the term of the previous Order are as follows:

Parameter, units	Effluent Limitation			Average	Monitoring Data Range (Jan. 2001 – Dec. 2005)[1]
	Average Monthly	Average Weekly	Maximum Daily		
Flow, gpd				4502	815 – 9758[2]
pH, standard units				--	6.67 – 7.57
Total Coliform Bacteria, MPN/100 mL				--	<2 – 30
BOD_5, mg/L	30	45		6.15[3]	<5 – 22
Percent Removal, BOD_5				98.1	87.0 – 99.8
Chlorine, mg/L				0.0	All 0.0
TSS, mg/L	30	45		4.32	1 - 26
Percent Removal, TSS				97.2	80.0 – 99.9
Settleable Solids, ml/L				0.01[4]	0.01
Dissolved Oxygen, mg/L				4.2	0.87 – 5.37
Oil and Grease, mg/L	10		20	6.06[5]	<5 – 6.06
Acute Toxicity, % Survival				96.7	90 – 100
Antimony, µg/L				0.27	0.2 – 0.3
Arsenic, µg/L				0.73	0.6 – 0.9
Beryllium, µg/L				All ND	<0.06
Cadmium, µg/L				0.06	0.04 – 0.08
Chromium III, µg/L				1.7	0.6 – 2.6
Chromium VI, µg/L				All ND	<0.002 - <0.9
Copper, µg/L			17	19.9	8.8 – 30
Lead, µg/L				0.3	0.13 – 0.56
Mercury, µg/L				0.007	0.0014 – 0.019
Nickel, µg/L				3.7	3.5 – 3.9
Selenium, µg/L				0.73	0.6 – 1.0
Silver, µg/L				0.027[3]	<0.02 – 0.05
Thallium, µg/L				0.2[6]	<0.03 – 0.2
Zinc, µg/L	442		888	58.3	56 – 60
Cyanide, µg/L			10	7[6]	<0.9 – 7

2,3,7,8-TCDD TEQ, µg/L				2.05×10^{-9} [7]	2.05×10^{-9}
Chlorodibromomethane, µg/L				0.7	0.6 – 0.8
Chloroform, µg/L				67.3	72 – 130
Dichlorobromomethane, µg/L				11.4	9.7 – 13
Bis(2-ethylhexyl)Phthalate, µg/L				0.3[6]	<0.8 – 0.3

[1] Priority pollutant data were available from March 2002 through October 2002.
[2] Flows are monthly average flows.
[3] Average was calculated with the non-detected values being replaced with half detection limit.
[4] All values were 0.01 ml/L.
[5] Only three values were reported for oil and grease, of which two were <5 mg/L.
[6] Thallium, only one value was detected at 0.2 µg/L; Cyanide: only one value was detected, at 7 µg/L; Bis(2-ethylhexyl)phthalate: only one value was detected at 0.3 µg/L.
[7] Only one sample was analyzed for 2,3,7,8-TCDD TEQ.

D. Compliance Summary

1. **Compliance with Numeric Effluent Limits.** Three exceedances of the effluent limits were observed during the permit term. One violation of the chlorine residual limitation in February 2005; and two violations of the copper effluent limitation in March 2002 and October 2002.

2. **Compliance with Permit Provisions.** A list of special activities required in the provisions for Order No. 92-033, and the status of completion, is shown in Table F-5 below.

Table F-5. Status of Special Activities in Provisions for Order No. 92-033

Provision No.	Description of Activity	Status of Completion
5	Evaluate facility redundancy and reliability	Complete – District installed Cl_2 and SO_2 analyzers with hi/lo alarms as well as a SCADA system.
8	Employ a Grade II operator to supervise operation of plant	Complete

3. **Compliance with Submittal of Self-Monitoring Reports.** The Discharger submitted all Self-Monitoring Reports on or before the due date during the term of Order No. 92-033.

E. Planned Changes

The Discharger plans to continue investigations into converting the Paradise Cove Treatment Plant into a pump station that would deliver flows to the Sanitary District No. 5 of Marin County Main Plant. The Discharger claims that by 2008, this Paradise Cove Plant will be converted to a pump station. Below is more detailed information regarding this change.

Since the mid-1980's, the Discharger's District (Sanitary District No. 5) has considered providing wastewater treatment for residents on the eastern side of the Tiburon peninsula along Paradise Drive. While most of the homes in the area are on septic tanks, two areas are served by small, antiquated treatment plants. One of these plants (Paradise Cove, also known as Playa Verde) is owned and operated by Sanitary District 5, but the other (Seafirth Plant) is owned and operated by the Seafirth Home Owners Association. The native soil conditions along Paradise Drive are such that septic systems are problematic, leading local and state health officials to discourage further development in the area.

In 1994, Sanitary District 5 commissioned a study to identify and evaluate alternatives for serving the Paradise Cove area. The recommended alternative was to collect and transport the wastewater to the Main treatment plant located on Mar West Street (Sanitary District 5, Tiburan Plant). An environmental impact report was developed and an election conducted to form an assessment district for the area. The election failed. Since then, several alternative projects have been proposed for serving the area. At the December 20, 2005 Sanitary District 5 Board meeting, there was a proposal for a staged development of the entire east side of the peninsula, entitled Proposal to Replace the Paradise Cove Treatment Plant and Sewer – the East Side of Tiburon Peninsula.

The Sanitary District 5 has been searching for alternative solutions for servicing the eastern side of the peninsula for many years. An increased flow allowance at the Paradise Cove plant would allow residents with failing septic systems to connect to the current plant while the Preliminary Design of the wastewater conveyance system is under way. The wastewater conveyance system project is estimated to be completed by April 2008.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

B. California Environmental Quality Act (CEQA).

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the San Francisco Bay Basin (Region 2) (hereinafter Basin Plan) that designates beneficial uses, establishes WQOs, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to Central San Francisco Bay are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Central San Francisco Bay	Water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); wildlife habitat (WILD); preservation of habitat for rare and endangered species (RARE); estuarine habitat (EST); fish migration and spawning (MIGR, SPWN); shellfish harvesting (SHELL); navigation (NAV); industrial process and service supply (IND, PROC).

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains WQOs for coastal and interstate surface waters as well as enclosed bays and estuaries.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria (WQC) for priority pollutants and are applicable to this discharge.

4. **State Implementation Policy.** On March 2, 2000, State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000 . The SIP became effective on May 18, 2000. The State Water Board subsequently amended the SIP and the amendments became effective on May 31, 2005. The SIP includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs), and requires Dischargers to submit data sufficient to do so.

5. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the Federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. The permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16, and the final limitations in this Order are in compliance with antidegradation requirements and meet the requirements of the SIP because these limits hold the Discharger to performance levels that will not cause or contribute to water quality impairment or further water quality degradation.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions

require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. Some effluent limitations in this Order are less stringent that those in the previous Order. As discussed in this Fact Sheet, this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and Federal regulations.

7. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement Federal and State requirements. This MRP is provided in Attachment E of this Order. The MRP may be amended by the Executive Officer pursuant to USEPA regulation 40 CFR 122.62, 122.63, and 124.5.

8. **Federal Water Pollution Control Act.** Water quality objectives (WQOs) and water quality criteria (WQC), effluent limitations, and calculations contained in this Order are also based on Sections 201 through 305, and 307 of The Federal Water Pollution Control Act, and amendments thereto, as applicable.

D. Impaired Water Bodies on CWA 303(d) List

On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State (hereinafter referred to as the 303(d) list), prepared pursuant to provisions of Section 303(d) of the Federal CWA requiring identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Central San Francisco Bay is listed as an impaired water body. The pollutants impairing Central San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, PCBs, PCBs (dioxin-like), and selenium. The SIP requires final effluent limitations for all 303(d)-listed pollutants to be based on total maximum daily loads and associated waste load allocations.

1. **Total Maximum Daily Loads.** The Regional Water Board plans to adopt Total Maximum Daily Loads (TMDLs) for pollutants on the 303(d) list in Central San Francisco Bay within the next ten years. Future review of the 303(d)-list for Central San Francisco Bay may result in revision of the schedules or provide schedules for other pollutants.

2. **Waste Load Allocations.** The TMDLs will establish waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, and will result in achieving the water quality standards for the waterbodies. Final WQBELs for 303(d)-listed pollutants in this discharge will be based on WLAs contained in the respective TMDLs.

3. **Implementation Strategy.** The Regional Water Board's strategy to collect water quality data and to develop TMDLs is summarized below:

   a. **Data Collection.** The Regional Water Board has given the dischargers the option to collectively assist in developing and implementing analytical techniques capable of

detecting 303(d)-listed pollutants to at least their respective levels of concern or WQOs/WQC. This collective effort may include development of sample concentration techniques for approval by the USEPA. The Regional Water Board will require dischargers to characterize the pollutant loads from their facilities into the water-quality limited waterbodies. The results will be used in the development of TMDLs, and may be used to update or revise the 303(d) list or change the WQOs/WQC for the impaired waterbodies including Central San Francisco Bay.

b. **Funding Mechanism.** The Regional Water Board has received, and anticipates continuing to receive, resources from Federal and State agencies for TMDL development. To ensure timely development of TMDLs, the Regional Water Board intends to supplement these resources by allocating development costs among dischargers through the RMP or other appropriate funding mechanisms.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR §122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established. Three options exist to protect water quality: 1) 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

This Order contains restrictions on individual pollutants that are no more stringent than required by the Federal Clean Water Act. Individual pollutant restrictions consist of water quality-based effluent limitations that have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to Federal law and are the applicable Federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the California Toxics Rule, the California Toxics Rule is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA prior to May 1, 2001, or Basin Plan provisions approved by USEPA on May 29, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USPEA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order were approved by USEPA on January 5, 2005, and are applicable water quality standards pursuant to 40 CFR 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than the applicable water quality standards for purposes of the Clean Water Act.

Several specific factors affecting the development of limitations and requirements in this Order are discussed as follows:

A. Discharge Prohibitions.

1. Prohibition III.A (No discharge other than described in this order). This prohibition is the same as in the previous permit and is based on California Water Code (CWC) Section 13260 that requires filing of a ROWD before a permit to discharge can be granted. The Discharger submitted a ROWD, dated December 20, 2001, for permission to discharge as specified in this permit, thus any discharges other than as described in this Order are prohibited.

2. Discharge Prohibition III.B. (average dry weather flow not to exceed 0.020 mgd): Under the previous permit the WWTP had a rated average dry weather flow design of 0.025 mgd, but an effective capacity of 0.011 gpd. The previous permit limited the average dry weather flow to 0.011 mgd. The Regional Water Board is granting an increase based on the Discharger's reevaluation of the WWTP's hydraulic capacity and an antidegradation analysis of the increased pollutant loading to the Bay. This prohibition is based on 40 CFR 122.41(l).

3. Prohibition III.C. (no discharge receiving less than 10:1 dilution): This prohibition is based on the Basin Plan, and is from the previous permit.

4. Discharge Prohibition III.D (no bypass or overflow of untreated wastewaters): These prohibitions are based on the Basin Plan. The Basin Plan prohibits the discharge of partially treated and untreated wastes (Chapter 4, Discharge Prohibition No.15). This prohibition is based on general concepts contained in Sections 13260 through 13264 of the California Water Code that relate to the discharge of waste to State waters without filing for and being issued a permit. Under certain circumstances, as stated in 40 CFR 122.41 (m), the facilities may bypass waste streams to waters of the State in order to prevent loss of life, personal injury, or severe property damage, or if there were no feasible alternatives to the bypass and the Discharger submitted notices of the anticipated bypass to waters of the State.

B. Technology-Based Effluent Limitations

The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Secondary Treatment Standards at 40 CFR Part 133. Permit effluent limitations for conventional pollutants are technology-based. Technology-based effluent limitations are put in place to ensure that full secondary treatment is achieved by the wastewater treatment facility, as required under 40 CFR Part 133.102. Effluent limitations for these conventional pollutants are defined by the Basin Plan. Further, these conventional effluent limits are the same as those from the previous permit for the following constituents:

- Biochemical oxygen demand (BOD)
- Total suspended solids
- Oil & Grease
- Chlorine residual

The settleable solids effluent limitations are no longer required as indicated in the Basin Plan amendment which became effective January, 2005.

1. Scope and Authority

Regulations promulgated in 40 CFR §125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator. Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

a. **Biochemical Oxygen Demand.** This effluent limitation is unchanged from the previous permit, and is based on the Basin Plan (Chapter 4, Table 4-2).

b. **Total Suspended Solids.** This effluent limitation is unchanged from the previous permit, and is based on the Basin Plan (Chapter 4, Table 4-2).

c. **Total Chlorine Residual.** This effluent limitation is unchanged from the previous permit, and is based on the Basin Plan (Chapter 4, Table 4-2).

d. **pH.** This effluent limitation is unchanged from the previous permit, and is based on the Basin Plan (Chapter 4, Table 4-2).

e. This effluent limitation is unchanged from the previous permit, and is based on the Basin Plan (Chapter 4, Table 4-2). Table 4-2 requirements for this conventional pollutant meets applicable water quality objectives and protects beneficial uses in Chapter 3, due to natural die off of pathogenic organisms, and dilution achieved by deepwater diffusers.

2. Applicable Technology-Based Effluent Limitations

Summary of Technology-based Effluent Limitations
Discharge Point E-001

A. Conventional Pollutants

Parameter	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Max Daily	Instantaneous Maximum

Parameter	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Max Daily	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	----	----
Total Suspended Solids	mg/L	30	45	----	----
Oil & Grease	mg/L	10	----	20	----
Total Chlorine Residual[1]	mg/L	----	----	----	0.0

[1] The chlorine residual requirement is defined as below the limit of detection in standard methods defined in *Standard Methods for the Examination of Water and Wastewater.* The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfate dosage (which could be interpolated), and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Water Board staff may conclude that these false positive chlorine residual exceedances are not violations of this permit limitation.

a. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

b. **pH:** The pH of the discharge shall not exceed 9.0 nor be less than 6.0. If the Discharger employs continuous pH monitoring, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied:

   i. The total time during which the pH values are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month.

   ii. No individual excursion from the required range of pH values shall exceed 60 minutes.

c. Total Coliform Bacteria: The treated wastewater, at some point in the treatment process prior to discharge, shall meet the following bacteriological limitations: The moving median value of most probable number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 mL; and, any single sample shall not exceed 10,000 MPN/100 mL.

d. Whole Effluent Acute Toxicity: Representative samples of the effluent shall meet the following limitations for acute toxicity. Compliance with these limitations shall be achieved in accordance with Provision E.9 of this Order:

   a. The survival of bioassay test organisms in 96-hour bioassays of undiluted effluent shall be:

      (1) A three (3)-sample median value of not less than 90 percent survival; and
      (2) A single (1) maximum value of not less than 70 percent survival.

   b. The 3-sample median acute toxicity limit is further defined as follows:

      Any bioassay test showing survival of 90 percent or greater is not a violation of this limitation. A bioassay test showing survival of less than 90 percent represents a violation of this effluent limitation, if one of the past two or fewer bioassay tests also show less than 90 percent survival.

c. Bioassays shall be performed using the most up-to-date U.S. EPA protocol. Bioassays shall be conducted in compliance with "Methods for Measuring The Acute Toxicity of Effluents and Receiving Water To Freshwater and Marine Organisms", currently 5th Edition, with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP) upon the Discharger's request with justification.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority.

a. As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard (Reasonable Potential). The process for determining Reasonable Potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other State plans and policies, or water quality criteria contained in the CTR and NTR.

b. NPDES regulations and the SIP provide the basis to establish Maximum Daily Effluent Limitations (MDELs).

1) **NPDES Regulations.** NPDES regulations at 40 CFR Part 122.45(d) state: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall *unless impracticable* be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works."

2) **SIP.** The SIP (page 8, Section 1.4) requires WQBELs be expressed as MDELs and average monthly effluent limitations (AMELs).

c. MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives.

The WQC and WQOs applicable to the receiving waters for this discharge are from the Basin Plan, the USEPA's May 18, 2000 Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (the California Toxics Rule, or the CTR), and the USEPA's National Toxics Rule (the NTR).

a. Basin Plan. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in freshwater, lead, mercury, nickel, silver, zinc, and cyanide (see also c., below). The narrative toxicity objective states in part "[a]ll waters

shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states in part "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered." Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

b. CTR. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries such as here, except that where the Basin Plan's Tables 3-3 and 3-4 specify numeric objectives for certain of these priority toxic pollutants, the Basin Plan's numeric objectives apply over the CTR (except in the South Bay south of the Dumbarton Bridge).

c. NTR. The NTR established numeric aquatic life criteria for selenium, numeric aquatic life and human health criteria for cyanide, and numeric human health criteria for 34 toxic organic pollutants for waters of San Francisco Bay upstream to, and including, Suisun Bay and the Delta. This includes the receiving water for this Discharger.

d. Technical Support Document for Water Quality-Based Toxics Controls. Where numeric objectives have not been established or updated in the Basin Plan, 40 CFR Part 122.44(d) specifies that WQBELs may be set based on USEPA criteria, supplemented where necessary by other relevant information, to attain and maintain narrative WQOs to fully protect designated beneficial uses. Regional Water Board staff used best professional judgment (BPJs) to determine the WQOs, WQCs, WQBELs, and calculations contained in this Order as defined by USEPA's March 1991 Technical Support Document for Water Quality-Based Toxics Control (the TSD).

e. Basin Plan Receiving Water Salinity Policy. The Basin Plan states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable WQC. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one ppt at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria, (the latter calculated based on ambient hardness), for each substance.

1) **Receiving Water Salinity.** The receiving water for the subject discharge is Central San Francisco Bay. Regional Water Board staff evaluated RMP salinity data from the three nearest receiving water stations: Richardson Bay, Point Isabel, and Yerba Buena Island, for the period February 1993 – August 2001. During that period, the receiving water's minimum salinity was 11.6 ppt, its maximum salinity was 31.6 ppt, and its average salinity was 23.5 ppt. These data are all well above the threshold for saltwater ; therefore, the reasonable potential analysis (RPA) and limitations in this Order are based on marine or saltwater WQOs/WQC.

f. Deep Water Discharge. Discharge to the Central San Francisco Bay is into deep water. The 1995 Basin Plan states that in order to be classified as a deepwater discharge, waste must be discharged through an outfall with a diffuser and must receive a minimum initial dilution of 10:1, with generally much greater dilution. The Discharger claims, based on studies probably conducted in the 1980s, that its discharge meets the minimum initial dilution of 10:1. Therefore, this Discharge is classified by the Regional Water Board as a deepwater discharge.

In response to the State Board Order No. 2001-06, Regional Water Board staff evaluates the assimilative capacity of the receiving water for 303(d) listed pollutants for which the Discharger has reasonable potential in its discharges. The evaluation included a review of RMP data (local and Central Bay stations), effluent data, and WQOs/WQC. In this case, the Discharger had no reasonable potential for bioaccumulative pollutants; therefore Regional Board staff did not perform this evaluation.

The Discharger reports that they submitted a dilution study in the early 1980s that documented that the diffuser achieves a minimum dilution of at least 10:1. Though this old report cannot be located, previous permits have granted the Discharger a 10:1 dilution credit. Also outfalls located 20 feet below the water surface generally do achieve at least 10:1 dilution. These factors taken together support the granting of dilution to the discharger. Limiting the dilution credit is based on SIP provisions in Section 1.4.2. The following outlines the basis for limiting the dilution credit.

i. A far-field background station is appropriate because the receiving waterbody (Bay) is a very complex estuarine system with highly variable and seasonal upstream freshwater inflows and diurnal tidal saltwater inputs.

ii. Due to the complex hydrology of the San Francisco Bay, a mixing zone cannot be accurately established.

iii. Previous dilution studies do not fully account for the cumulative effects of other wastewater discharges to the system.

iv. The SIP allows limiting a mixing zone and dilution credit for persistent pollutants (e.g., copper, silver, nickel and lead).

The main justification for limiting dilution credit is uncertainty in accurately determining ambient background and uncertainty in accurately determining the mixing zone in a complex estuarine system with multiple wastewater discharges. The basis for using 10:1 is that it was granted in the previous permit. This 10:1 limit is also based on the Basin Plan's prohibition number 1, which prohibits discharges less than 10:1. Since this discharge is required to achieve at least 10:1, it is appropriate to grant 10:1 at this time.

g. Interim Limitations and Compliance Schedules

1) Pursuant to Section 2.1.1 of the SIP, "the compliance schedule provisions for the development and adoption of a TMDL only apply when: (a) the Dischargers request and demonstrates that it is infeasible for the Dischargers to achieve immediate compliance with a CTR criterion; and (b) the Discharger has made appropriate

commitments to support and expedite the development of the TMDL. In determining appropriate commitments, the Regional Water Board should consider the Discharger's contribution to current loadings and the Discharger's ability to participate in TMDL development." Regional Water Board staff performed an RPA and determined that no mercury effluent limitation (concentration or mass) is needed at this time. However, as part of the San Francisco Bay Mercury TMDL implementation strategy, all wastewater treatment plants will receive a mercury mass limitation.

2) The SIP and the Basin Plan authorize compliance schedules in a permit if an existing Discharger cannot immediately comply with a new and more stringent effluent limitation. Compliance schedules for limitations derived from CTR WQC are based on Section 2.2 of the SIP, and compliance schedules for limitations derived from NTR and Basin Plan WQOs are based on the Basin Plan. Both the SIP and the Basin Plan require the Dischargers to demonstrate the infeasibility of achieving immediate compliance with the new limitation to qualify for a compliance schedule.

   The SIP and Basin Plan require the following documentation to be submitted to the Regional Water Board to support a finding of infeasibility:

   - Descriptions of diligent efforts the Dischargers have made to quantify pollutant levels in the discharge, sources of the pollutant in the waste stream, and the results of those efforts.
   - Descriptions of source control and/or pollutant minimization efforts currently under way or completed.
   - A proposed schedule for additional or future source control measures, pollutant minimization, or waste treatment.
   - A demonstration that the proposed schedule is as short as practicable.

   The Basin Plan provides for a 10-year compliance schedule to implement measures to comply with new standards as of the effective date of those standards. This provision applies to the objectives adopted in the 2004 Basin Plan Amendment. Additionally, the provision authorizes compliance schedules for new interpretations of other existing standards if the new interpretation results in more stringent limitations. This latter situation applies to NTR criteria and Basin Plan objectives in place prior to the SIP. Due to the adoption of the SIP, the Regional Water Board has newly interpreted these objectives and standards. The effective date of the new interpretation is the effective date of the SIP (April 28, 2000).

3) On March 20, 2006, the Discharger submitted a feasibility study (the 2006 Feasibility Study), asserting it is infeasible to immediately comply with the WQBELs, calculated according to SIP Section 1.4, for cyanide. Based on these analyses, the Regional Water Board concurs that it is infeasible to achieve immediate compliance for this pollutant.

4) The interim limitation for cyanide shall remain in effect until April 27, 2010 for cyanide, or until the Regional Water Board amends the limitation based on a site-specific objective (SSO).

5) This Order establishes a compliance schedule that extends beyond one year for cyanide. Pursuant to the SIP and 40 CFR 122.47, the Regional Water Board shall establish interim numeric limitations and interim requirements to control this pollutant. This Order establishes interim limitations for cyanide based on the previous permit limitation and existing performance, unless antibacksliding provisions are met. This Order also establishes interim requirements in a provision for participation and support of the development of the cyanide SSO and for documentation of efforts in annual reports.

3. **Determining the Need for WQBELs.** Title 40 CFR Part 122.44(d) (1) (i) requires permits to include WQBELs for all pollutants (non-priority or priority) "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any narrative or numeric criteria within a State water quality standard" (have Reasonable Potential). Thus, assessing whether a pollutant has Reasonable Potential is the fundamental step in determining whether or not a WQBEL is required. For non-priority pollutants, Regional Water Board staff used available monitoring data, receiving water's designated uses, and/or previous permit pollutant limitations to determine Reasonable Potential as described in Sections 3.a. and 3.b. below. For priority pollutants, Regional Water Board staff used the methods prescribed in Section 1.3 of the SIP to determine if the discharge from Discharge Point 001 demonstrates Reasonable Potential as described below in sections 3.c – 3.h.

   a. **Reasonable Potential Analysis.** Using the methods prescribed in Section 1.3 of the SIP, Regional Water Board staff analyzed the effluent data to determine if the discharge demonstrates Reasonable Potential. The Reasonable Potential Analysis (RPA) compares the effluent data with numeric and narrative WQOs in the Basin Plan and numeric WQC from the USEPA, the NTR, and the CTR. The Basin Plan objectives and CTR criteria are shown in Appendix A of this Fact Sheet.

   b. **Reasonable Potential Methodology.** Using the methods and procedures prescribed in Section 1.3 of the SIP, Regional Water Board staff analyzed the effluent and background data and the nature of facility operations to determine if the discharge has reasonable potential to cause or contribute to exceedances of applicable SSOs or WQC. Appendix A of this Fact Sheet shows the stepwise process described in Section 1.3 of the SIP.

      The RPA identifies the observed MEC in the effluent for each pollutant, based on effluent concentration data. There are three triggers in determining Reasonable Potential:

      1) The first trigger is activated if the MEC is greater than the lowest applicable WQO (MEC ≥ WQO), which has been adjusted, if appropriate, for pH, hardness, and translator data. If the MEC is greater than the adjusted WQO, then that pollutant has reasonable potential, and a WQBEL is required.

2) The second trigger is activated if the observed maximum ambient background concentration (B) is greater than the adjusted WQO (B>WQO) and the pollutant was detected in any of the effluent samples.

3) The third trigger is activated if a review of other information determines that a WQBEL is required to protect beneficial uses, even though both MEC and B are less than the WQO/WQC. A limitation may be required under certain circumstances to protect beneficial uses.

c. **Effluent Data.** The Regional Water Board's August 6, 2001 letter titled *Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy* (hereinafter referred to as the Regional Water Board's August 6, 2001 Letter) to all permittees, formally required the Discharger (pursuant to Section 13267 of the CWC) to initiate or continue to monitor for the priority pollutants using analytical methods that provide the best detection limits reasonably feasible. Regional Water Board staff analyzed these effluent data to determine if the discharge has Reasonable Potential. The RPA for this permit was based on the effluent monitoring data collected in 2002 for priority pollutants.

d. **Ambient Background Data.** Ambient background values are used in the reasonable potential analysis (RPA) and in the calculation of effluent limitations. For the RPA, ambient background concentrations are the observed maximum detected water column concentrations. The SIP states that for calculating WQBELs, ambient background concentrations are either the observed maximum ambient water column concentrations or, for criteria/objectives intended to protect human health from carcinogenic effects, the arithmetic mean of observed ambient water concentrations. The RMP station at Yerba Buena Island, located in the Central Bay, has been sampled for most of the inorganic (CTR constituent numbers 1–15) and some of the organic (CTR constituent numbers 16–126) toxic pollutants. Not all the constituents listed in the CTR were analyzed by the RMP during this time.

These data gaps are addressed by the Regional Water Board's August 6, 2001 Letter titled "Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy" (hereinafter referred to as the Regional Water Board's August 6, 2001 Letter—available online; see Standard Language and Other References Available Online, below). The Regional Water Board's August 6, 2001 Letter formally requires the Discharger (pursuant to Section 13267 of the California Water Code) to conduct ambient background monitoring and effluent monitoring for those constituents not currently sampled by the RMP and to provide this technical information to the Regional Water Board.

On May 15, 2003, a group of several San Francisco Bay Region Dischargers (known as the Bay Area Clean Water Agencies, or BACWA) submitted a collaborative receiving water study, entitled the *San Francisco Bay Ambient Water Monitoring Interim Report.* This study includes monitoring results from sampling events in 2002 and 2003 for the remaining priority pollutants not monitored by the RMP. The RPA was conducted and the WQBELs were calculated using RMP data from 1993 through 2003 for inorganics and organics at the Yerba Buena Island RMP station, and additional data from the BACWA *Ambient Water Monitoring: Final CTR Sampling Update Report* for the

Yerba Buena Island RMP station. The Discharger may utilize the receiving water study provided by BACWA to fulfill all requirements of the August 6, 2001 letter for receiving water monitoring in this Order.

c. **RPA Determination.** The MECs, WQOs/WQC, basis for the WQOs/WQC, background concentrations used, and Reasonable Potential conclusions from the RPA are listed in the following table for all constituents analyzed. Some of the constituents in the CTR were not determined because of the lack of an objective/criteria or effluent data. Based on the RPA methodology in the SIP, some constituents did not demonstrate Reasonable Potential. The RPA results are shown below and Appendix A of this Fact Sheet. The pollutants that exhibit Reasonable Potential are copper, cyanide, and 2,3,7,8 TCDD (dioxins and furans).

CTR #	Priority Pollutants	MEC or Minimum DL [a][b] (µg/L)	Governing WQO/WQC (µg/L)	Maximum Background or Minimum DL [a][b] (µg/L)	RPA Results[c]
1	Antimony	0.3	4300	1.8	No
2	Arsenic	0.9	36	2.46	No
3	Beryllium	Not Available	No Criteria	0.215	Undetermined
4	Cadmium	0.08	9.3	0.1268	No
5a	Chromium (III)	2.6	No Criteria	Not Available	Undetermined
5b	Chromium (VI)	0.002	50	4.4	No
6	Copper (303d listed)	30	4.19	2.45	Yes
7	Lead	0.56	5.6	0.8	No
8	Mercury (303d listed)	0.019	0.025	0.0086	No
9	Nickel	3.9	7.1	3.7	No
10	Selenium (303d listed)	1	5	0.39	No
11	Silver	0.05	2.3	0.0516	No
12	Thallium	0.2	6.3	0.21	No
13	Zinc	60	86	4.4	No
14	Cyanide	7	1	<0.4	Yes
15	Asbestos	Not Available	No Criteria	Not Available	Undetermined
16	2,3,7,8 TCDD (303d listed)	2.05E-09	0.000000014	0.000000071	Yes
17	Acrolein	1	780	<0.5	No
18	Acrylonitrile	Not Available	0.66	0.03	No
19	Benzene	0.27	71	<0.05	No
20	Bromoform	0.1	360	<0.5	No
21	Carbon Tetrachloride	0.42	4.4	0.06	No
22	Chlorobenzene	0.19	21000	<0.5	No
23	Chlorodibromomethane	0.8	34	<0.05	No
24	Chloroethane	Not Available	No Criteria	<0.5	Undetermined
25	2-Chloroethylvinyl ether	Not Available	No Criteria	<0.5	Undetermined
26	Chloroform	Not Available	No Criteria	<0.5	Undetermined
27	Dichlorobromomethane	13	46	<0.05	No
28	1,1-Dichloroethane	Not Available	No Criteria	<0.05	Undetermined
29	1,2-Dichloroethane	0.18	99	0.04	No
30	1,1-Dichloroethylene	0.37	3.2	<0.5	No
31	1,2-Dichloropropane	0.2	39	<0.05	No
32	1,3-Dichloropropylene	0.47	1700	Not Available	Cannot Determine
33	Ethylbenzene	0.3	29000	<0.5	No
34	Methyl Bromide	0.42	4000	<0.5	No
35	Methyl Chloride	Not Available	No Criteria	<0.5	Undetermined
36	Methylene Chloride	0.38	1600	0.5	No
37	1,1,2,2-Tetrachloroethane	0.3	11	<0.05	No
38	Tetrachloroethylene	0.32	8.85	<0.05	No
39	Toluene	0.25	200000	<0.3	No
40	1,2-Trans-Dichloroethylene	0.3	140000	<0.5	No

41	1,1,1-Trichloroethane	Not Available	No Criteria	<0.5	Undetermined
42	1,1,2-Trichloroethane	0.27	42	<0.05	No
43	Trichloroethylene	0.29	81	<0.5	No
44	Vinyl Chloride	0.34	525	<0.5	No
45	2-Chlorophenol	0.4	400	<1.2	No
46	2,4-Dichlorophenol	0.3	790	<1.3	No
47	2,4-Dimethylphenol	0.3	2300	<1.3	No
48	2-Methyl- 4,6-Dinitrophenol	0.4	765	<1.2	No
49	2,4-Dinitrophenol	0.3	14000	<0.7	No
50	2-Nitrophenol	Not Available	No Criteria	<1.3	Undetermined
51	4-Nitrophenol	Not Available	No Criteria	<1.6	Undetermined
52	3-Methyl 4-Chlorophenol	Not Available	No Criteria	<1.1	Undetermined
53	Pentachlorophenol	0.4	7.9	<1	No
54	Phenol	0.2	4600000	<1.3	No
55	2,4,6-Trichlorophenol	0.2	6.5	<1.3	No
56	Acenaphthene	0.17	2700	0.0015	No
57	Acenaphthylene	Not Available	No Criteria	0.00053	Undetermined
58	Anthracene	0.16	110000	0.0005	No
59	Benzidine	Not Available	0.00054	<0.0015	No
60	Benzo(a)Anthracene	Not Available	0.049	0.0053	No
61	Benzo(a)Pyrene	Not Available	0.049	0.00029	No
62	Benzo(b)Fluoranthene	Not Available	0.049	0.0046	No
63	Benzo(ghi)Perylene	Not Available	No Criteria	0.0027	Undetermined
64	Benzo(k)Fluoranthene	Not Available	0.049	0.0015	No
65	Bis(2-Chloroethoxy)Methane	Not Available	No Criteria	<0.3	Undetermined
66	Bis(2-Chloroethyl)Ether	0.3	1.4	<0.3	No
67	Bis(2-Chloroisopropyl)Ether	0.6	170000	Not Available	Cannot Determine
68	Bis(2-Ethylhexyl)Phthalate	0.3	5.9	<0.5	No
69	4-Bromophenyl Phenyl Ether	Not Available	No Criteria	<0.23	Undetermined
70	Butylbenzyl Phthalate	0.4	5200	<0.52	No
71	2-Chloronaphthalene	0.3	4300	<0.3	No
72	4-Chlorophenyl Phenyl Ether	Not Available	No Criteria	<0.3	Undetermined
73	Chrysene	Not Available	0.049	0.0024	No
74	Dibenzo(a,h)Anthracene	0.04	0.049	0.00064	No
75	1,2-Dichlorobenzene	0.52	17000	<0.8	No
76	1,3-Dichlorobenzene	0.36	2600	<0.8	No
77	1,4-Dichlorobenzene	0.42	2600	<0.8	No
78	3,3 Dichlorobenzidine	Not Available	0.077	<0.001	No
79	Diethyl Phthalate	0.4	120000	<0.24	No
80	Dimethyl Phthalate	0.4	2900000	<0.24	No
81	Di-n-Butyl Phthalate	0.4	12000	<0.5	No
82	2,4-Dinitrotoluene	0.3	9.1	<0.27	No
83	2,6-Dinitrotoluene	Not Available	No Criteria	<0.29	Undetermined
84	Di-n-Octyl Phthalate	Not Available	No Criteria	<0.38	Undetermined
85	1,2-Diphenylhydrazine	0.3	0.54	0.0037	No
86	Fluoranthene	0.03	370	0.011	No
87	Fluorene	0.02	14000	0.00208	No
88	Hexachlorobenzene	Not Available	0.00077	0.0000202	No
89	Hexachlorobutadiene	0.2	50	<0.3	No
90	Hexachlorocyclopentadiene	0.1	17000	<0.31	No
91	Hexachloroethane	0.2	8.9	<0.2	No
92	Indeno(1,2,3-cd)Pyrene	0.04	0.049	0.004	No
93	Isophorone	0.3	600	<0.3	No
94	Naphthalene	Not Available	No Criteria	0.0023	Undetermined
95	Nitrobenzene	0.3	1900	<0.25	No
96	N-Nitrosodimethylamine	0.4	8.1	<0.3	No
97	N-Nitrosodi-n-Propylamine	0.3	1.4	<0.001	No
98	N-Nitrosodiphenylamine	0.4	16	<0.001	No
99	Phenanthrene	Not Available	No Criteria	0.0061	Undetermined

100	Pyrene	0.03	11000	0.0051	No
101	1,2,4-Trichlorobenzene	Not Available	No Criteria	<0.3	Undetermined
102	Aldrin	Not Available	0.00014	Not Available	Cannot Determine
103	alpha-BHC	0.002	0.013	0.000496	No
104	beta-BHC	0.001	0.046	0.000413	No
105	gamma-BHC	0.001	0.063	0.0007034	No
106	delta-BHC	Not Available	No Criteria	0.000042	Undetermined
107	Chlordane (303d listed)	Not Available	0.00059	0.00018	No
108	4,4'-DDT (303d listed)	Not Available	0.00059	0.000066	No
109	4,4'-DDE (linked to DDT)	Not Available	0.00059	0.000693	No
110	4,4'-DDD	Not Available	0.00084	0.000313	No
111	Dieldrin (303d listed)	Not Available	0.00014	0.000264	No
112	alpha-Endosulfan	0.002	0.0087	0.000031	No
113	beta-Endolsulfan	0.001	0.0087	0.000069	No
114	Endosulfan Sulfate	0.001	240	0.0000819	No
115	Endrin	0.002	0.0023	0.000036	No
116	Endrin Aldehyde	0.002	0.81	Not Available	Cannot Determine
117	Heptachlor	Not Available	0.00021	0.000019	No
118	Heptachlor Epoxide	Not Available	0.00011	0.000094	No
119-125	PCBs sum	Not Available	0.00017	Not Available	Cannot Determine
126	Toxaphene	Not Available	0.0002	Not Available	Cannot Determine
	Tributylin	0.00846	0.01	<0.001	No
	Total PAHs	0.02	15	0.052	No

[a] The Maximum Effluent Concentration (MEC) or maximum background concentration is the actual detected concentration unless there is a "<" sign before it, in which case the value shown is the minimum detection level.

[b] The MEC or maximum background concentration is "Not Available" when there are no monitoring data for the constituent.

[c] RPA Results = Yes, if MEC > WQO/WQC, or B > WQO/WQC and MEC is detected;
= No, if MEC and B are < WQO/WQC or all effluent data are undetected;
= Undetermined, if no criteria have been promulgated;
= Cannot Determine, if there are insufficient data.

1) **Constituents with limited data.** The Discharger has performed sampling and analysis for the constituents listed in the CTR. This data set was used to perform the RPA. In some cases, Reasonable Potential cannot be determined because effluent data are limited, or ambient background concentrations are not available. The Discharger will continue to monitor for these constituents in the effluent using analytical methods that provide the best feasible detection limits. When additional data become available, further RPA will be conducted to determine whether to add numeric effluent limitations to this Order or to continue monitoring.

2) **Pollutants with no Reasonable Potential.** WQBELs are not included in this Order for constituents that do not demonstrate Reasonable Potential; however, monitoring for those pollutants is still required. If concentrations of these constituents are found to have increased significantly, the Discharger will be required to investigate the source(s) of the increase(s). Remedial measures are required if the increases pose a threat to water quality in the receiving water.

4. **WQBEL Calculations.** WQBELs were developed for the toxic and priority pollutants that were determined to have reasonable potential to cause or contribute to exceedances of the WQOs or WQC. The WQBELs were calculated based on appropriate WQOs/WQC and the appropriate procedures specified in Section 1.4 of the SIP (See p. F-22, section IV.C.4.e. of this Fact Sheet). The WQOs or WQC used for each pollutant with Reasonable Potential is discussed below and presented in Attachment 1 of this Fact Sheet.

a. **Copper**

i. *Copper WQC.* The saltwater criteria for copper in the CTR are 3.1 µg/L for chronic protection and 4.8 µg/L for acute protection. Based on the Clean Estuary Partnership, "North of Dumbarton Bridge Copper and Nickel Site-Specific Objective Derivation Report". EOA/LWA, December 2004, site-specific translators for copper are 0.74 and 0.88 for converting chronic and acute dissolved WQC into total, respectively. Additionally, that effort resulted in data that would support a water effects ratio (WER) of 2.4 that is appropriate for this discharge Using these translators and the WER, the translated criteria of 10.01 µg/L for chronic protection and 13.08 µg/L for acute protection were used to perform the RPA and to calculate effluent limitations.

ii. *RPA Results* This Order establishes effluent limitations for copper because the 30 µg/L MEC exceeds the governing WQC of 10.01 µg/L, demonstrating reasonable potential by Trigger 1, as defined in Finding 36 above.

iii. *Copper WQBELs.* The copper WQBELs calculated according to SIP procedures are 110 µg/L as a maximum daily and 54 µg/L as an average monthly.

iv. *Alternate Limit for Copper.* During the permit term, the Regional Water Board is scheduled to put into effect a copper SSO for the San Francisco Bay region. The copper SSO is based on the technical data contained in "North of Dumbarton Bridge Copper and Nickel Site-Specific Objective Derivation Report" EOA/LWA, December 2004. The alternate copper limits based on these draft SSOs are more stringent that the copper WQBELs specified in this permit. As such, it is appropriate to have the alternate limits come into effect as soon as the SSO is effective. Current effluent data suggests that the Discharger can comply. If future data demonstrates that it is infeasible to immediately comply, the Discharger may request a permit amendment to allow for a compliance schedule as allowed by law.

v. *Antibacksliding/Antidegradation.* The previous copper effluent limitation was a daily average limitation of 17 µg/L. No feasibility analysis was conducted or allowed at the time the previous permit limit was imposed. Discharge data collected since that permit show that the Discharger cannot comply. The levels are within the range found in other POTW discharges and are likely from anti-corrosive chemicals used in drinking water as there are no commercial or industrial sources in the Discharger's service area. The final limits in this Order were developed based on the applicable SIP procedures. These limits are less stringent than the previous permit. Under Clean Water Act Sections 402(o)(1), there is an allowable exception to anti-backsliding for attained waters as long as the relaxation of limits complies with anti-degradation requirements. Anti-degradation is satisfied because the new limit will not involve significant or substantial increases in pollutant loadings owing to the very low volume of this discharge, the source of copper, and the newly imposed pollutant minimization requirements.

b. Cyanide

i. *Cyanide WQC.* The NTR includes WQC that govern cyanide for the protection of aquatic life in salt surface water. The NTR specifies a saltwater Criterion Maximum Concentration (CMC) and Criterion Chronic Concentration (CCC) of 1 µg/L.

ii. *RPA Results.* This Order establishes effluent limitations for cyanide because the 7 µg/L MEC exceeds the governing WQC of 1 µg/L, demonstrating reasonable potential by Trigger 1, as defined in Finding 36, above.

iii. *Cyanide WQBELs.* The cyanide WQBELs calculated according to SIP procedures are 6.4 µg/L maximum daily and 3.2 µg/L average monthly.

iv. Cyanide compliance is a regional problem associated with the analytical protocol for cyanide analysis due to matrix inferences. There is also evidence to suggest that, to some degree, cyanide measured in effluents may be an artifact of the analytical method used or the result of analytical interferences. In general, the chemistry of cyanide formation in POTW effluents is highly complex, involving both chemical and environmental factors, in ways that are still poorly understood, despite considerable research. In addition, it is not known whether the form(s) of cyanide that are measured in POTW effluents exhibit toxicity in these environments.

v. *SSO and Ambient Background Data Collection.* A regional discharger-funded study is underway for development of a cyanide SSO or recalculation of the criteria. The cyanide study plan was submitted on October 29, 2001, and the final report was submitted on June 29, 2003. The WQBELs will be re-calculated based on a cyanide SSO, or updated criteria if adopted. A draft Basin Plan amendment including new SSOs for the Bay, compliance strategies for shallow water dischargers, and implementation policy for the SSOs has been developed and is under public review and comment.

vi. *Immediate Compliance Infeasible.* The Discharger's Feasibility Study asserts the Discharger cannot immediately comply with these WQBELs. The Discharger's data

set contained only three data points, only one of which was a detected value. Due to the limited data, it was not possible to perform a meaningful statistical analysis of feasibility. Regional Water Board staff compared the MEC to the AMEL to verify that it is infeasible for the Discharger to immediately comply with the WQBELs.

vii. *Interim Effluent Limitation.* Because it is infeasible for the Discharger to immediately comply with the cyanide WQBELs, an interim limitation is required. Regional Water Board staff considered effluent data from 2002 to develop an interim limitation. As explained above, it is not possible to perform a meaningful statistical evaluation of current treatment performance. The previous Order includes a cyanide effluent limitation of 10 µg/L, which is established as the interim limitation.

viii. *Plant Performance and Attainability.* The effluent data set from 2002 consisted of three values, two non-detected values of < 0.9 µg/L and one detected value of 7 µg/L. Since all effluent cyanide values were below the 10 µg/L interim limitation, it is feasible for the Discharger to comply with the interim limitation.

ix. *Term of Interim Effluent Limitations.* The cyanide interim limitation shall remain in effect until April 27, 2010 or until the Regional Water Board amends the limitations based on additional data or SSOs. However, during the next permit reissuance, Regional Water Board staff may re-evaluate the cyanide interim limitations.

x. *Alternative Limit for Cyanide.* As described in Draft Staff Report on Proposed Site-Specific Water Quality Objectives and Effluent Limit Policy for Cyanide for San Francisco Bay, dated November 10, 2005, the Regional Water Board is proposing to develop site-specific criteria for cyanide. In this report, the proposed site-specific objective criteria for marine waters at 2.9 µg/L as a four-day average, and 9.4 µg/L as a one-hour average. Based on the Discharger's current cyanide data (coefficient of variation of 0.6), final water quality based effluent limits for cyanide will be 42 µg/L as a Maximum Daily, and 21 µg/L as Monthly Average. These alternative limits will become effective only if the site-specific objective adopted for cyanide contains the same assumptions in the staff report, dated November 10, 2005.

xi. *Antibacksliding/Antidegradation.* The antibacksliding/antidegradation requirements are satisfied as the interim limit is unchanged from that of the previous permit.

d. Dioxins and Furans

i. *Dioxin WQC.* The CTR establishes a numeric human health WQC of 0.014 pg/L for 2,3,7,8-TCDD based on consumption of organisms. The preamble of the CTR states that California NPDES permits should use TEQs where dioxin-like compounds have reasonable potential with respect to narrative criteria. The preamble further states that U.S. EPA intends to use the 1998 World Health Organization TEF scheme in the future and encourages California to use this scheme in State programs. In addition, the CTR preamble states U.S. EPA's intent to adopt revised WQC guidance subsequent to their health reassessment for dioxin-like compounds. Staff used TEQs to translate the narrative WQOs to numeric WQOs for the other 16 congeners.

ii. *RPA Results.* The dioxin TEQ maximum background concentration is above the governing WQC, which triggers reasonable potential using Trigger 2, as defined in Finding 36, above.

iii. *Dioxin WQBELs.* The TCDD TEQ WQBELs calculated according to SIP procedures are 0.014 pg/L as the AMEL and 0.028 pg/L. The only effluent sample analyzed for dioxin (in 2002) had a value of 0.00205 pg/L.

iv. *Dioxin Effluent Limits.* No dioxin limits (final or interim) are established. Only one dioxin sample has been collected and analyzed to date, therefore, making it difficult to calculate an interim limit. The final limits for dioxin TEQ will be based on the WLA assigned to the Discharger in the TMDL. This permit requires additional dioxin monitoring to complement a special dioxin project being conducted by the Clean Estuary Partnership (CEP). The special dioxin project will consist of impairment assessment and a conceptual model for dioxin loading into the Bay. The permit will be reopened, as appropriate, to include interim dioxin limitations when additional data become available.

5. **Whole Effluent Toxicity (WET).** The Basin Plan requires dischargers to either conduct flow-through effluent toxicity tests or perform static renewal bioassays (Chapter 4, Acute Toxicity) to measure the toxicity of wastewaters and to assess negative impacts upon water quality and beneficial uses caused by the aggregate toxic effect of the discharge of pollutants. This Order includes effluent limitations for whole effluent acute toxicity that are unchanged from the previous permit. Compliance evaluation is based on 96-hour static-renewal bioassays. All bioassays shall be performed according to the U.S. EPA-approved method in 40 CFR Part 136, currently "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water, 5th Edition." The Discharger requests to use static-renewal acute toxicity testing in place of flow-through testing because the WWTP is not currently ELAP certified for acute toxicity testing; and because it costs too much to modify the WWTP to perform tests on-site. The Discharger claims it would cost up to 60% of the operating budget ($60,000 (lab cost)/105,000(annual budget)). The Regional Water Board has reviewed the Discharger's evidence and supports this request.

6. Chronic Toxicity. Due to the characteristics of the influent, the Regional Water Board has determined there is no RPA for chronic toxicity; therefore, there are no chronic toxicity monitoring requirements in this permit. This discharge is considered minor (0.02 mgd), and there are no industrial type discharges into the WWTP. The influent consists of domestic wastewater from about 65 homes.

D. Numeric Effluent Limitations

Table F-3. Summary of Water Quality Based Effluent Limitations for E-001

Parameter	Units	Final Effluent Limits		Interim Effluent Limits	
		Daily Maximum (MDEL)	Monthly Average (AMEL)	Daily Maximum	Monthly Average
Copper	µg/L	**110**	**54**	---	----
Cyanide	µg/L	**6.4**	**3.2**	10	----

(1) The Regional Water Board may amend the limitation based on the Waste Load Allocations in the Total Maximum Daily Loads.

(2) The Regional Water Board may amend the limitation based on the Site Specific Objectives for this parameter, provided such amendment complies with anti-backsliding and antidegradation.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Receiving Water Limitations V.A. (conditions to be maintained): These limitations are in the existing permit and are based on water quality objectives for physical, chemical, and biological characteristics from Chapter 3 of the Basin Plan.

B. Receiving Water Limitation V.B. (special limitations): This limitation is in the existing permit, requires compliance with Federal and State law, and is self-explanatory.

C. Receiving Water Limitation V.C. (compliance with State law): Self-explanatory.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The principal purposes of a monitoring program by a discharger are to:

1) Document compliance with waste discharge requirements and prohibitions established by the Regional Water Board,
2) Facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge,
3) Develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and to
4) Prepare water and wastewater quality inventories.

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement Federal and State requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for Paradise Cove.

The MRP is a standard requirement in almost all NPDES permits issued by the Regional Water Board, including this Order. It contains definitions of terms, specifies general sampling and analytical protocols, and sets out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's policies. The MRP also contains a sampling program specific for Paradise Cove. It defines the sampling stations and frequency, the pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all parameters for which effluent limitations are specified. Monitoring for additional constituents, for which no effluent limitations are established, is also required to provide data for future completion of RPAs for them.

d. **Influent Monitoring.** The MRP includes monitoring at A-001 for conventional pollutants. This Order requires daily flow monitoring and quarterly monitoring for BOD and total suspended solids, to facilitate self-policing for the prevention and abatement of potential pollution arising in the effluent discharge.

B. Effluent Monitoring. The MRP includes monitoring at E-001 and E-001D for conventional and toxic pollutants. This Order requires monthly monitoring of dissolved oxygen. Sampling for chlorine residual and pH were changed from daily to 5 days per week, because the plant is in a remote location and is not staffed on the weekends. The sampling frequencies for BOD, TSS, total coliform, and oil and grease are the same as the previous permit; which is quarterly except for oil and grease which is annual. The sampling frequency for copper, and cyanide is quarterly.

C. Whole Effluent Toxicity Testing Requirements. The Basin Plan requires dischargers to either conduct flow-through effluent toxicity tests or perform static renewal bioassays (Chapter 4, Acute Toxicity) to measure the toxicity of wastewaters and to assess negative impacts upon water quality and beneficial uses caused by the aggregate toxic effect of the discharge of pollutants

D. Receiving Water Monitoring. The Discharger shall collect or participate in collecting background ambient receiving water data with other Dischargers and/or through the Regional Monitoring Program (RMP). This information is required to perform RPAs and to calculate effluent limitations. The data on the conventional water quality parameters (pH, salinity, and hardness) shall also be sufficient to characterize these parameters in the ambient receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through monitoring under the BACWA Coordinated Receiving Water Monitoring Effort, or a similar ambient monitoring program for San Francisco Bay. This Order may be reopened, as appropriate, to incorporate effluent limits or other requirements based on the Regional Water Board review of these data.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions (Provision A). Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D and G of this Order.

B. Special Provisions (Provision C).

1. **Reopener Provisions.** These provisions are based on 40 CFR 123 and allow future modification of this Order and its effluent limitations as necessary in response to updated WQOs that may be established in the future.

2. **Permit Compliance and Rescission of Previous Waste Discharge Requirements.** Time of compliance is based on 40 CFR 122. The basis of this Order superseding and rescinding the previous permit is based on 40 CFR 122.46.

3. **Effluent Characterization Study.** This Order does not include effluent limitations for the selected constituents addressed in the August 6, 2001 Letter that do not demonstrate Reasonable Potential, but this provision requires the Discharger to continue monitoring for these pollutants as described in the August 6, 2001 Letter and as specified in the MRP of this Order. If concentrations of these constituents increase significantly, the Discharger will be required to investigate the source of the increases and establish remedial measures,

if the increases result in reasonable potential to cause or contribute to an excursion above the applicable WQO/WQC. This provision is based on the Basin Plan and the SIP.

4. **Ambient Background Receiving Water Study.** This provision is based on the Basin Plan, the SIP, and the August 6, 2001 Letter for priority pollutant monitoring. As indicated in the permit, this requirement may be met by participating in the collaborative BACWA study.

5. **Pollution Prevention and Pollutant Minimization Program.** This provision is based on Chapter 4 of the Basin Plan and Section 2.1 of the SIP. Pollutant minimization is specifically required for copper because the alternate limits that may come into effect will be more stringent. Therefore, the Discharger must implement appropriate measures to ensure its discharge concentrations do not increase.

6. **Optional Mass Offset.** This option is provided to encourage the Discharger to further implement aggressive reduction of mass loads to the Central San Francisco Bay.

7. **Sanitary Sewer Management Plan.** This provision requires the Discharger to actively participate in the BACWA and Regional Water Board collaborative effort to address SSOs. The effort is consistent with Regional Water Board Resolution No. R2-2003-0095 and Executive Officer's letters, dated November 15, 2004 and July 7, 2005, respectively.

8. **Actions for Compliance Schedule Pollutants**
Consistent with the SIP, the Discharger shall participate in the development of region-wide SSO studies. In the Annual Report, the Discharger shall submit an update to the Regional Water Board to document progress made on source control and pollutant minimization measures and SSO(s) development. This Order may be reopened in the future to reflect any changes required by SSO development. Though compliance schedule is not necessary, and therefore not granted, for copper, pollution prevention and support of the copper SSO are still required because the alternate copper limitations (calculated using draft SSO) are more stringent. See also basis for Provision 5 above.

9. **Whole Effluent Acute Toxicity.** This provision describes the acute toxicity requirements of this Order.

10. **Biosolids Management Practices Requirements.** This provision is based on the Basin Plan (Chapter IV) and 40 CFR 257 and 503.

11. **Construction, Operation, and Maintenance Specifications**

    a. Wastewater Facilities, Review and Evaluation, Status Reports: This provision is based on the previous permit and the Basin Plan.

    b. Operations and Maintenance Manual, Review: This provision is based on the Basin Plan, the requirements of 40 CFR 122, and the previous permit.

    c. Status Reports and Contingency Plan, Review and Status Report: This provision is based on the Basin Plan, the requirements of 40 CFR 122, and the previous permit.

12. Order Reapplication. This provision is based on 40 CFR 122.46(a).

VIII. PUBLIC PARTICIPATION

The San Francisco Bay Regional Water Board is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Paradise Cove Wastewater Treatment Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the Marin Independent Journal.

B. Written Comments. The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order, Attention: Gina Kathuria

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on May 17, 2006.

C. Public Hearing. The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	June 14, 2006
Time:	9:00 AM
Location:	Elihu M. Harris Building First Floor Auditorium 1515 Clay Street Oakland, CA 94612
Contact:	Gina Kathuria, (510) 622-2378, gkathuria@waterboards.ca.gov

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is **www.waterboards.ca.gov/sanfranciscobay** where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions. Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying. The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m. except from noon to 1:00 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (510) 622-2300.

F. Register of Interested Persons. Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information. Requests for additional information or questions regarding this order should be directed to Gina Kathuria at (510) 622-2378 or gkathuria@waterboards.ca.gov.

Attachment 1
Effluent Limitation Calcuations
(Per Section 1.4 of the SIP)
Paradise Cove Treatment Plant

PRIORITY POLLUTANTS	Copper	Alt Copper	Cyanide	Alt Cyanide	Dioxin
Basis and Criteria type	CTR SW	CTR SW	CTR SW	SSO	HH
Lowest WQO	4.19	8.11	1.0	2.9	0.000000014
Translators	0.74, 0.88	0.74, 0.88			
Water Effects Ratio	2.40	2.40			
Dilution Factor (D) (if applicable)	9	9	9	9	9
no. of samples per month	4	4	4	4	4
Aquatic life criteria analysis required? (Y/N)	Y	Y	Y	Y	N
HH criteria analysis required? (Y/N)	N	N	Y	Y	Y
Applicable Acute WQO	13.08	10.64	1	9.4	
Applicable Chronic WQO	10.01	8.11	1	2.9	
HH criteria			220,000	220,000	0.000000014
Background (max conc for Aq Life calc)	2.45	2.45	0.4	0.4	0.071
Background (avg conc for HH calc)			0.4	0.4	0.03165
Is the pollutant Bioaccumulative(Y/N)? (e.g., Hg)	N	N	N	N	Y
ECA acute	108.75	84.35	6.40	90.40	
ECA chronic	78.05	59.05	6.4	25.4	
ECA HH			2,199,996	2,199,996	0.000000014
No. of data points <10 or atleast 80% of data reported non detect? (Y/N)	Y	Y	Y	Y	Y
avg of data points					
SD					
CV calculated	N/A	N/A	N/A	N/A	N/A
CV (Selected) - Final	0.60	0.60	0.60	0.60	0.60
ECA acute mult99	0.32	0.32	0.32	0.32	
ECA chronic mult99	0.53	0.53	0.53	0.53	
LTA acute	34.92	27.08	2.05	29.03	
LTA chronic	41.17	31.14	3.38	13.40	
minimum of LTAs	34.92	27.08	2.05	13.40	
AMEL mult95	1.55	1.55	1.55	1.55	1.55
MDEL mult99	3.11	3.11	3.11	3.11	3.11
AMEL (aq life)	54.21	42.04	3.19	20.80	
MDEL(aq life)	108.75	84.35	6.40	41.72	
MDEL/AMEL Multiplier	2.01	2.01	2.01	2.01	2.01
AMEL (human hlth)			2,199,996	2,199,996	0.000000014
MDEL (human hlth)			4,413,609	4,413,609	0.000000028
minimum of AMEL for Aq. life vs HH	54.21	42.04	3.19	20.80	0.000000014
minimum of MDEL for Aq. Life vs HH	108.75	84.35	6.40	41.72	0.000000028
Current limit in permit (30-d avg)	N/A	N/A	N/A	N/A	N/A
Current limits in permit (daily)	17	17	10	10	N/A
Final limit - AMEL	54.2	42.0	3.2	20.8	0.000000014
Final limit - MDEL	108.8	84.4	6.4	41.7	0.000000028
Max Effl Conc (MEC)	30	30	7.0	7.0	2.05E-09
Interim Limits			10	10	N/A